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Attorneys for Plaintiff OWEN DIAZ

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

DEMETRIC DI-AZ, OWEN DIAZ, and
LAMAR PATTERSON,

Plaintiffs,

v.

TESLA, INC. dba TESLA MOTORS, INC.;
CITISTAFF SOLUTIONS, INC.; WEST
VALLEY STAFFING GROUP;
CHARTWELL STAFFING SERVICES, INC.;
and DOES 1-50, inclusive,

Defendants.

Case No. 3:17-cv-06748-WHO

**DECLARATION OF NAVRUZ AVLONI
IN SUPPORT OF PLAINTIFF OWEN
DIAZ'S OPPOSITION TO DEFENDANT
TESLA, INC.'S MOTION TO STRIKE
TESTIMONY OF CHALRES MAHLA**

Trial date: September 27, 2021
Complaint filed: October 16, 2017

1 I, Navruz Avloni, declare:

2 1. I am an attorney of record for Plaintiff Owen Diaz. I make this declaration based
3 on my personal knowledge. If called to do so, I could and would testify to the following.

4 2. On October 11, 2019, our office served Plaintiff's designation of expert witnesses
5 on Tesla, Inc., amongst other defendants who were parties at the time. In his disclosures, Plaintiff
6 identified Charles Mahla as an expert that would testify at trial about Defendants' financial
7 condition, and noted that, "At this time, only financial information regarding Defendant Tesla,
8 Inc., is available because it is a publicly traded corporation."

9 3. On or around October 11, 2019, Plaintiff served the expert report of Charles R.
10 Mahla on Tesla, in which Dr. Mahla described his assignment as follows:

11 I have been asked by counsel for Plaintiff Owen Diaz to conduct an analysis and
12 to provide an opinion relating to the financial condition of the Defendants and to
13 further provide an opinion regarding their ability to pay a punitive damage award
14 to Mr. Diaz should this Court determine that such an award is warranted. Nothing
15 in this report should be construed as my endorsement that such an award is
warranted. Additionally, I hold no opinion as to the amount of a punitive damage
award that should be granted.

16 In connection with this assignment, my staff and I have reviewed publicly
17 available documents and court filings produced during discovery in this matter. A
18 list of the materials reviewed to date is shown in **Tab 2**. It should be noted that, to
19 date, no financial data regarding two of the Defendants—Citistaff Solutions, Inc.,
20 and Nextsource, Inc.—have been provided to me. Because these two Defendants
21 are privately owned, no publicly available data exist that would allow me to
analyze their financial condition. As such, I cannot provide an opinion at this time
about their financial condition or their capability to pay a punitive damage award.
If, and when, such data become available, I will supplement this report with my
findings. This report, then, relates only to Tesla, Inc. and its financial position.

22 Attached hereto and marked as **Exhibit 1** is a true and correct copy of the Expert Report of
23 Charles R. Mahla, Ph.D. that was produced to Defendant Tesla, Inc. on or around October 11,
24 2019.

25 4. On or around February 25, 2020, Defendant Tesla, Inc. took the deposition of Dr.
26 Charles Mahla. Attached hereto and marked as **Exhibit 2** are true and correct copies of the
27 excerpts from the deposition of Charles R. Mahla, Ph.D.

28 5. Attached hereto and marked as **Exhibit 3** is true and correct copy of the

1 September 30, 2021 transcript reflecting Dr. Mahla's testimony at trial.

2 6. Attached hereto and marked as **Exhibit 4** is a true and correct copy of a document
3 titled "Form 10-Q" for "Tesla, Inc." and signed on "April 27, 2021" that I saved from the United
4 States Securities and Exchange Commission website:

5 <https://www.sec.gov/Archives/edgar/data/1318605/000095017021000046/tsla-20210331.htm>

6 7. Attached hereto and marked as **Exhibit 5** is a true and correct copy of a document
7 titled "Form 10-K" for "Tesla, Inc." and signed on "February 13, 2020" obtained from the
8 United States Securities Exchange Commission website.

9
10 I declare under penalty of perjury under the laws of the United States of America that the
11 foregoing is true and correct. Executed on the 2nd of October, 2021.

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13 By: /s/ Navruz Avloni
14 Navruz Avloni, Esq.
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EXHIBIT 1

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

DEMETRIC DI-AZ, OWEN DIAZ, LAMAR
PATTERSON,

Plaintiffs,

vs.

TESLA, INC. dba TESLA MOTORS, INC.;
CITISTAFF SOLUTIONS, INC.; WEST
VALLEY STAFFING GROUP;
CHARTWELL STAFFING SERVICES,
INC.; NEXTSOURCE, INC.; et al.,

Defendants.

CASE NO: 17-cv-06478-WHO

**EXPERT REPORT OF
CHARLES R. MAHLA, PH.D.**

Introduction

1. I am a Managing Director and Senior Economist with Econ One, an economic research and consulting firm with offices in Los Angeles, Sacramento, Denver, Houston, Lafayette, Memphis, New York, and Washington D.C. I have a bachelor's degree in economics from Lafayette College and a doctoral degree in economics from the University of North Carolina at Chapel Hill. During the more than 26 years of my professional career, I have worked extensively on the analysis of markets and the assessment of economic damages and their valuation, as well as the assessment of firm value. In addition, I have performed analyses of losses arising from personal injury, wrongful death, employment discrimination, and

wrongful termination. I have testified as an expert witness in State and Federal Courts. A more detailed summary of my training, past experience and prior testimony is shown in **Tab 1**.

2. Econ One is being compensated for the time I spend on this matter at my normal and customary rate of \$560 per hour. Also, Econ One is being compensated for time spent by research staff on this project at their normal and customary hourly rates, ranging from \$115 to \$235 per hour.

Assignment

3. I have been asked by counsel for Plaintiff Owen Diaz to conduct an analysis and to provide an opinion relating to the financial condition of the Defendants and to further provide an opinion regarding their ability to pay a punitive damage award to Mr. Diaz should this Court determine that such an award is warranted. Nothing in this report should be construed as my endorsement that such an award is warranted. Additionally, I hold no opinion as to the amount of a punitive damage award that should be granted.

4. In connection with this assignment, my staff and I have reviewed publicly available documents and court filings produced during discovery in this matter. A list of the materials reviewed to date is shown in **Tab 2**. It should be noted that, to date, no financial data regarding two of the Defendants—Citistaff Solutions, Inc., and Nextsource, Inc.—have been provided to me. Because these

two Defendants are privately owned, no publicly available data exist that would allow me to analyze their financial condition. As such, I cannot provide an opinion at this time about their financial condition or their capability to pay a punitive damage award. If, and when, such data become available, I will supplement this report with my findings. This report, then, relates only to Tesla, Inc. and its financial position.

Tesla, Inc.

5. Tesla, Inc. (“Tesla”) is a Delaware Corporation, incorporated on July 1, 2003.¹ A Fortune 500 company,² Tesla “design[s], develop[s], manufacture[s] and sell[s] high-performance fully electric vehicles and design[s], manufacture[s], install[s] and sell[s] solar energy generation and energy storage products.”³ By almost any measure, Tesla is a large company. Its total assets, as of June of this year, were \$31.9 billion.⁴ Tesla’s assets have grown almost 295 percent since December 2015, when it reported total assets of \$8.09 billion.⁵

¹ Tesla, Inc. Form 10-Q, for the Quarterly Period ending June 30, 2019, p. 10.

² According to Fortune, Tesla is the 144th largest U.S. company, ranked by revenues, on its 2019 Fortune 500 list. This represents a jump of 116 spots from the 2018 list. See <https://fortune.com/fortune500/2019/search/?name=Tesla>. This jump is almost as large as the one Tesla made in 2018 over its position on the 2017 list. Tesla jumped 123 spots in 2018, rising from its position of 383 in 2017. See <https://fortune.com/fortune500/2018/tesla/> (last viewed 10/10/2019).

³ Tesla, Inc. Form 10-Q, for the Quarterly Period ending June 30, 2019, p. 10.

⁴ *Ibid.*, p. 4

⁵ Tesla, Inc. Form 10-K, for the Fiscal Year Ended December 31, 2015, p. 47.

6. Tesla has experienced even greater growth in revenues. It reported total revenues of \$4.05 billion in fiscal 2015.⁶ Last year, its revenues were more than 430 percent greater, coming in at \$21.5 billion.⁷ For the first half of this year, Tesla reported total revenue of \$10.9 billion, which is 47 percent greater than the revenue generated during the first half of 2018.⁸ In fact, Tesla boasts that it achieved a record number of auto deliveries in the second quarter of 2019—95,356 vehicles—surpassing its previous quarterly record of approximately 91,000 autos in the fourth quarter of 2018.⁹

7. Another measure of Tesla's size is its market capitalization, which is simply the total value of its publicly traded stock. Using the number of outstanding shares reported in Tesla's 2nd Quarter 10-Q (179,127,239),¹⁰ and its closing price on the NASDAQ exchange for October 9, 2019 (\$244.53),¹¹ Tesla's current market capitalization is approximately \$43.8 billion. By way of comparison, General Motors Company has a market cap of \$49.4 billion, Honda Motor Company has a market cap of \$46.7 billion, and Ford Motor Company has a market cap of \$34.3 billion.¹²

⁶ Ibid., p. 31.

⁷ Tesla, Inc. Form 10-K, for the Fiscal Year Ended December 31, 2018, p. 41.

⁸ For the first 6 months of fiscal 2018, Tesla generated revenues of \$7.4 billion. See Tesla, Inc. Form 10-Q, for the Quarterly Period ending June 30, 2019, p. 5.

⁹ See "Tesla Second Quarter 2019 Update," p. 1.

¹⁰ Ibid., p. 1.

¹¹ Google Finance, www.google.com/finance, using the ticker symbol TSLA. Last viewed 10/10/2019.

¹² Google Finance, www.google.com/finance, using the ticker symbols GM, HMC, and F, respectively. Last viewed 10/10/2019.

8. While Tesla has accumulated a sizeable level of assets, has seen triple-digit growth in revenues since 2015, and has a market capitalization in excess of \$43 billion, it has not yet generated positive net income. Last year, it reported a net loss of \$1.06 billion, or \$5.72 per share.¹³ While these losses are sizeable, they were less than half the loss reported in 2017.¹⁴ Further, according to Tesla's "Second Quarter 2019 Update," Tesla is aiming for "positive GAAP net income in Q3" of this year.¹⁵

9. A firm's profits can be an indicator of its fiscal health, and while the lack of positive net income generally signals fiscal trouble, most economists and financial analysts recognize that this indicator alone is insufficient to determine a firm's financial well-being. This is so because the determination of net income involves accounting for some expenses that do not involve the expenditure of cash, and, therefore, can significantly understate the performance of the company. For this reason, many financial analysts focus on a firm's cash flows to examine its financial health. Here, Tesla again shows positive growth and a sizeable accumulation. According to its Second Quarter 2019 Update, Tesla generated \$614 million of *free* cash flow in the second quarter of this year.¹⁶ Further, Tesla

¹³ Tesla, Inc. Form 10-K, for the Fiscal Year Ended December 31, 2018, p. 73.

¹⁴ *Ibid.*

¹⁵ See "Tesla Second Quarter 2019 Update," p. 2. While Tesla states that it is aiming for positive net income for the 3rd quarter of 2019, it notes that its main focus will remain increasing volume and capacity growth, along with the generation of cash flow.

¹⁶ *Ibid.*, p. 1. Free cash flow is defined as operating cash flow less capital expenditures. This is an important measure of cash in that it represents cash available to the firm after expenditures on capital investments. Therefore, Tesla generated \$614 million in cash which could be spent without impacting its operations and its capital investments.

ended its second quarter of 2019 with \$5 billion in cash and cash equivalents.¹⁷

This latter figure is up from \$4.3 billion at year-end 2018.¹⁸

10. Finally, and in addition to having significant liquid assets, a track record of significant asset and revenue growth, and a market capitalization greater than Ford Motor Company, Tesla has a significant unused line of credit at its disposal. It reported that as of June 30th of this year, it had \$1.99 billion in unused credit that it could draw upon if needed.¹⁹ While Tesla would need to demonstrate to its lenders that it has the capacity to repay additional draw downs on its credit facilities, “there are no restrictions on the use of such funds for general corporate purposes.”²⁰

11. Like many relatively young, fast-growth companies, Tesla does face various risks to its business. These risks include product development and launch delays, production ramp-up difficulties, product shortages/delivery delays, consumer acceptance/demand issues, difficulties/problems with input suppliers, long-term product performance shortcomings, and current and future competition in the all-electric vehicle marketplace, to name a few.²¹ While a combination of any of these risks could result in future financial distress to Tesla, its recent

¹⁷ Ibid. “Cash equivalents” are assets that are highly liquid and can readily be converted into cash.

¹⁸ Tesla, Inc. Form 10-K, for the Fiscal Year Ended December 31, 2018, p. 76.

¹⁹ Tesla, Inc. Form 10-Q, for the Quarterly Period ending June 30, 2019, p. 48.

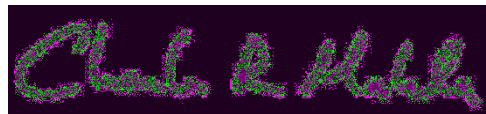
²⁰ Ibid. As of June 30, 2019, Tesla had total indebtedness of \$12.2 billion, with interest expense that amounted to 3 percent of revenues for the 2nd quarter. See Tesla, Inc. Form 10-Q, for the Quarterly Period ending June 30, 2019, pp. 23 and 46, respectively.

²¹ Many of these, and other risks are outlined in Tesla’s financial reports. See, for example, Tesla, Inc. Form 10-Q, for the Quarterly Period ending June 30, 2019, pp. 52-69.

performance and growth indicate that they are not threatening Tesla's near-term horizon. Tesla has posted a positive outlook for its future, with the typical caveats, in its Second Quarter 2019 Update, noting that it believes its "business has grown to the point of being self-funding."²²

Conclusion

12. Tesla is a large, growing company. As outlined above, it has shown significant growth in both assets and revenues, has a market value of more than \$43 billion, has in excess of \$600 million in free cash flow, has \$5 billion in cash and cash equivalents, and has unused credit lines nearing \$2 billion. Given that the current litigation involves a single plaintiff, it is highly unlikely that any reasonable punitive damage award in this matter would threaten the ongoing viability of Tesla, Inc.



Charles R. Mahla, Ph.D.
October 11, 2019

²² See "Tesla Second Quarter 2019 Update," p. 2.

Tab 1



CHARLES R. MAHLA, PH.D.
Managing Director
Sacramento Office Head
Senior Economist
555 University Avenue, Suite 294
Sacramento, California 95825
Tel: 916 576 0366
E-mail: cmahla@econone.com

CHARLES R. MAHLA has been engaged in economic analysis and consulting for more than 26 years. He has consulted with companies in the chemical, biotechnology, medical equipment, defense, aerospace, computer, plastics, telecommunications, insurance, sporting goods, corrugated container and food distribution industries. He has extensive experience with the calculation of damages in antitrust, contract dispute and intellectual property matters. In addition, he has spent significant time on employment matters dealing with wrongful termination and employment discrimination, having testified in more than 150 cases. Over the last ten years, Dr. Mahla has performed more than 300 analyses of economic loss stemming from personal injury, wrongful death, and medical malpractice.

Dr. Mahla has extensive experience in the calculation of damages arising from patent infringement and the misappropriation of trade secrets and trade dress. Dr. Mahla has been engaged to calculate damages (both lost profits and reasonable royalties) by both plaintiffs and defendants across a wide array of industries and products, including percutaneous transluminal coronary angioplasty ("PTCA") catheters and stents, hemodialysis needle guards, agricultural GPS navigation equipment, COX-2 inhibitors, digital jukeboxes, motorized scooters, and online, automated automobile credit aggregation systems.

Dr. Mahla also has extensive experience with issues relating to the provision of cellular telephone service. Prior efforts include in-depth research regarding industry structure, conduct and performance. Among other things, Dr. Mahla has studied the regulatory history of cellular service, the nature and extent of industry competition and a number of related conduct issues. He also has examined the current regulatory environment, particularly in California, written about cellular issues, and participated in a round-table discussion panel conducted on behalf of the Office of Planning and Research for Governor Wilson. Dr. Mahla has testified in Superior Court of

California on matters relating to conduct in the Los Angeles cellular market. He also has testified in U.S. Bankruptcy Court on the impact of changes in California's regulatory oversight on the provision of cellular equipment.

In addition to Dr. Mahla's wireless telecom experience, he has analyzed the market structure and firm conduct in both the landline telco and cable industries. This work includes an analysis of competitive issues surrounding the access to data transmission services for the provision of broadband Internet services.

Dr. Mahla is a member of the American Economic Association and is an Associate Member of the American Bar Association.

EDUCATION

Ph.D.—Economics, *University of North Carolina - Chapel Hill*, Chapel Hill, North Carolina, December 1991 (Dissertation Title: "State Takeover Statutes and Shareholder Wealth")

B.A.—Economics, *Lafayette College*, Easton, Pennsylvania—*cum laude*, May 1982

PROFESSIONAL EXPERIENCE

Econ One Research, Inc., Sacramento, CA
Managing Director,
Sacramento Office Head, August 2009—Present

Econ One Research, Inc., Sacramento, CA
Senior Economist July 1997—July 2009

Micronomics, Inc., Sacramento, CA
Senior Economist April 1994—July 1997

Micronomics, Inc., Los Angeles, CA
Economist June 1992—March 1994

University of North Carolina, Greensboro, NC
Lecturer September 1989—May 1992

Arthur Andersen & Co., New York, NY
Staff Consultant June 1982—December 1984
Senior Consultant January 1985—June 1985

PROFESSIONAL AFFILIATIONS

National Association of Forensic Economics
Associate Member, American Bar Association

HONORS AND AWARDS

Omicron Delta Epsilon, Economics Honor Society, 1981
Phi Beta Kappa, Lafayette College, 1982
Economics & Business Award, Lafayette College, 1982
University Teaching Fellow, UNC-Chapel Hill, 1987
Lurcy Fellowship, UNC-Chapel Hill, 1988

BOOKS/MANUSCRIPTS

"Economic Damages—Primer for Attorneys; The Building Blocks for Valuing Economic Damages in Personal Injury, Wrongful Death, Medical Malpractice, and Products Liability Cases," edited with Dwight Steward, Ph.D., Econ One Research, Inc., 2007.

PAPERS/PRESENTATIONS

"Prejudgment Interest, Taxation and Patent Damages: How Courts Can Reduce the Bias," unpublished manuscript, August 1993.

"Personal Communications Services: A Golden Opportunity for California," for the Roundtable on Cellular Regulatory Policy, Governor's Office of Planning and Research, July 1994.

"Big Deals: The Capital Region Turned A Lot of Heads in 1998," Comstock's Magazine, March 1999.

"Can You Protect Yourself from Y2K Killer Bees?," Comstock's Magazine, May 1999.

"Dissecting the Millennium Bug?," Comstock's Magazine, May 1999.

"e-Taxes: The Growth of E-Commerce -- Is it a Taxing Dilemma?," Comstock's Business, October 1999.

"Digital Convergence: Surfing the Net on The Wireless Wave", Comstock's Business, Forthcoming, January 2000.

"Lost Profits and Royalties in Intellectual Property Disputes: The Need to Avoid Double Dipping", The Metropolitan Corporate Counsel, with Lynette Hilton, February 2000.

"Wireless Performance/Pricing Trends 2000," Panelist: Emerging Wireless and Satellite Broadband Technologies, Telecon 2000 Conference, Anaheim, CA, December 7, 2000.

"Public Forum For the 7th Annual CMRS Competition Report," Panelist, Federal Communications Commission, Washington, D.C., February 28, 2002.

"Patent Disputes: Bridging the Gap Between In-House Counsel and Law Firms," Panelist, West LegalEdcenter Conference, San Jose, CA, March 15, 2010.

"Negotiating the Royalty Damages Minefield--From Patent Reform to Recent Case Law Precedent," Presenter, Law.com Webinar with Phillip Johnson, Ph.D., September 15, 2010.

"Expert Witness Cross-Exam Workshop: Plaintiff's and Defendant's Expert," Co-lecturer with Michael Schwartz, The State Bar of California 2012 Annual Meeting, Monterey, CA, October 11-14, 2012.

"Patent Disputes 2012: Uncover the Changing Patent Landscape From Patent Portfolio to Litigation-Transitioning in a Post AIA World," Damages Section Panelist, West LegalEdcenter Conference, Santa Clara, CA, November 14, 2012.

"Patent Disputes 2013: How the AIA, USPTO and Patent Aggregation Have Changed the Landscape," Damages Section Panelist, West LegalEdcenter Conference, Santa Clara, CA, November 5, 2013.

"Patent Disputes Forum 2014," Damages Section Panelist, West LegalEdcenter Conference, Santa Clara, CA, November 4, 2014.

"Damage Issues in Employment Discrimination Litigation," Seminar provided to the Employment Group, Gordon & Rees, San Francisco, CA, May 3, 2016.

SUMMARY OF REPRESENTATIVE PRIOR ENGAGEMENTS

- Estimated lost profits and a royalty damages suffered by a manufacturer of handheld X-ray devices resulting from alleged patent infringement.
- Estimated damages to a professional fundraiser resulting from an alleged legal malpractice and breach of contract.
- Estimated damages arising from the misappropriation of trade secrets relating to the method of producing zero-fold PTCA balloons.
- Estimated lost earnings to an NFL assistant coach resulting from a breach of contract.
- Estimated losses to the estate of a commercial fisherman resulting from his death on the high seas.
- Reviewed and assessed the appropriateness of royalty claims made by a patent holder against a large software company. Claims involved methods of authentication for communication between computers in a virtual private network (“VPN”).
- Estimated the economic impact resulting from an inability to work due to injuries sustained in a motor vehicle accident.
- Analyzed the economic harm arising from disability discrimination on the part of an assisted living facility.
- Analyzed alleged underperformance on the part of a County Authority with respect to booking entertainment events at a Northern California arena.
- Analyzed royalty damages suffered from patent infringement in the market for scrolling-wheel computer mice.
- Analyzed economic losses to a family resulting from the mis-diagnosis of cancer.
- Analyzed lost share value to a telecom executive resulting from a breach of an employment contract.

- Assessed the appropriateness of royalty claims made by a patent holder against a large, international software company. Claims involved methods of use of a compression algorithm by end users in both the U.S. and abroad.
- Analyzed lost profits of a winery resulting from a breach of a requirements contract by a large, national importer.
- Analyzed lost sponsorship earnings to a professional fisherman resulting from an alleged contract interference.
- Performed a liquidation value analysis of a law firm partnership.
- Analyzed claims of lost profits and royalty damages allegedly suffered from patent infringement in the market for digital jukeboxes.
- Analyzed claims of lost profits and royalty damages allegedly suffered from patent infringement in the market for GPS-based guidance systems used in precision farming applications.
- Analyzed damages resulting from the alleged misappropriation of trade secrets relating to proprietary customer, price, and margin data of a large waterworks supplier.
- Analyzed employment discrimination claims relating to hiring practices in a Northern California school district. Determined degree to which plaintiff suffered economic losses resulting from the alleged discrimination.
- Reviewed and analyzed claims of damages allegedly suffered from wrongful termination of an electrical parts distribution contract.
- Reviewed and analyzed claims of damages allegedly suffered from fraud and wrongful termination by an insurance carrier.
- Conducted market-wide study of firm conduct in the corrugated cardboard industry. Study analyzed the conduct of integrated firm behavior with respect to pricing of inputs to downstream competitors.
- Analyzed claims of lost profits and royalty damages allegedly suffered from patent infringement in the market for hemodialysis needle guards.

- Conducted analysis of commercial success of an animal pharmaceutical in support of a patent application. Also analyzed appropriate reasonable royalty should patent be granted.
- Analyzed claims of damages allegedly suffered from trade dress infringement in the market for continuing medical education. Conducted statistical analysis of likely effects.
- Conducted market valuation of an Internet retail firm; analyzed claims of price discrimination and breach of contract.
- Analyzed effects of the refusal to grant interconnection to a prepaid service reseller by a large wireless carrier in connection with an alleged breach of contract. Quantified financial impact of alleged breach.
- Conducted market study of the Home Uterine Activity Monitor (“HUAM”) market, including complete review of FDA regulatory oversight of Level II and Level III medical devices. Analysis aided in the estimation of damages from an alleged breach of contract between a developer and manufacturer of HUAM devices.
- Analyzed the effects of wireless subscriber churn in connection with the estimation of damages suffered by a large wireless carrier from fraudulent agent churn.
- Conducted valuation of a potential royalty due to a large research university arising from the issuance of a patent on a new form of Non-Steroidal Anti-inflammatory Drug (“NSAID”).
- Conducted analysis of the development and maturation of the digital imaging industry as it related to potential damages arising from a breach of contract between a manufacturer and a distributor.
- Conducted a study on the effects of changes in California’s regulatory oversight on the provision of cellular equipment.
- Analyzed sales and pricing practices of a major soy polymer manufacturer in connection with charges of patent infringement and misappropriation of trade secrets.
- Analyzed economic aspects of a PBX switch termination agreement in connection with charges of breach of contract.

- Conducted market analysis of the cellular equipment market with a particular focus on the Los Angeles market. Study led to the estimation of financial damages resulting from below-cost pricing of such equipment.
- Lead firm's participation in *Roundtable on Cellular Regulatory Policy*, Governor's Office of Planning and Research.
- Conducted analysis of cellular service pricing behavior in Los Angeles, San Diego, and San Francisco relating to allegations of price fixing by service providers.
- Analyzed pricing practices of major pharmaceutical companies in connection with charges of discriminatory pricing and price fixing brought by numerous retail customers.

CHARLES R. MAHLA, Ph.D.
Prior Testimony

Econ One Research, Inc.
Sacramento, California

Proceeding	Court/Commission/Agency	Docket or File	Deposition/Trial	Date	On Behalf Of
<u>Antitrust</u>					
1. <u>Cel-Tech Communications, Inc. et al. v. Los Angeles Cellular Telephone Company, et al.</u>	Superior Court of the State of California, for the County of Los Angeles	No. VC 015535	Deposition Deposition Trial	December 1994 February 1995 March 1995	Plaintiff
2. <u>Apex Wholesale, Inc. v. Fry's Electronics, Inc., David Bricknell, Does 1-100, Black Corporations, and Grey Partnerships</u>	Superior Court of the State of California in and for the County of San Diego	GIC 734991	Deposition Trial	February 2001 July 2001	Plaintiff
3. <u>Cellexis International, Inc., n/k/a Wireless Pathways, Inc., an Arizona corporation v. U.S. West Newvector Group, Inc., n/k/a AirTouch Communications, Inc. a/k/a AirTouch Cellular, a Delaware corporation</u>	Superior Court of Arizona, County of Maricopa	CV200-000972	Deposition	December 2001	Plaintiff
4. <u>In Re. The BigStore.Com, Inc., etc., Debtor and Debtor-in -Possession, The BigStore.com, Inc. v. Ingram Micro, Inc., et al.</u>	United States Bankruptcy Court for the Central District of California - Santa Ana Division	SA-00-01589, Adversary No. 00-01668	Deposition	June 2002	Cross-Complainant
5. <u>Harry E. Stetser, Dale E. Nelson, and Michael de Montbrun, et al. v. TAP Pharmaceutical Products, Inc., et al.</u>	State of North Carolina, New Hanover County, In the General Court of Justice, Superior Division	1CV 5268	Deposition	March 2004	Plaintiff
6. <u>Bernard Walker et al. v. TAP Pharmaceutical Products, Inc., et al.</u>	Superior Court of the State of New Jersey, Law Division for the County of Cape May	CPM-L-682-01	Deposition	August 2004	Plaintiff
7. <u>The Morning Star Packing Company, et al. v. SK Foods, L.P., et al.</u>	United States District Court Eastern District of California, Sacramento Division	Case No.: 2:09-CV-00208-KJM-EFB	Deposition	August 2015	Plaintiff

CHARLES R. MAHLA, Ph.D.
Prior Testimony

Econ One Research, Inc.
Sacramento, California

Proceeding	Court/Commission/Agency	Docket or File	Deposition/Trial	Date	On Behalf Of
<u>Employment Disputes</u>					
1. <u>Roger D Mullins v. CalFarm Nationwide Insurance Company, Nationwide Mutual Insurance Company, Allied Insurance Company, a Subsidiary of Nationwide Mutual Insurance Company</u>	Superior Court of the State of California, for the County of Sacramento	00AS02142	Trial	March 2002	Plaintiff
2. <u>Mattie Brown v. Grant Union Unified School District, et al.,</u>	Superior Court of the State of California, for the County of Sacramento	99AS023749	Deposition	April 2002	Plaintiff
3. <u>Charlene J. Roby v. McKesson HBOC, et al.</u>	Superior Court of California, County of Yolo	CV01 01-573	Deposition Trial	October 2003 April 2004	Plaintiff
4. <u>Colleen E. Wrynski v. Agilent Technologies, Inc. et al.</u>	Superior Court of the State of California, County of Placer	SCV 13519	Deposition Trial	October 2003 June 2004	Plaintiff
5. <u>Kathy Simonian v. Valley Behavioral Health Network, LLC, et al.</u>	Superior Court of the State of California, County of Fresno	01CECG04272	Trial	December 2003	Plaintiff
6. <u>Stephan Woloszczuk v. USAA Casualty Insurance Company, Oakland Auto Body, Ron Vincenzi, F. Lofrano and Sons Auto Body, Fred Lofrano, et al.</u>	Superior Court of the State of California, County of Sacramento	02AS05263	Deposition Trial	August 2004 March 2006	Plaintiff
7. <u>Annisa Mayer v. Computer Sciences Corporation; CSC Consulting, Inc.; Christopher Vane; Peter Ryder; Shawn Sires; and Does 1-100</u>	Superior Court of the State of California, County of San Francisco	CGC03422578	Deposition Trial	September 2004 November 2004	Plaintiff
8. <u>Diann L. Smooth v. Del Paso Heights School District, Harry Block, Laurie Ellis, Doris Hamilton, Ronald Lee, Carolyn Moore, and Does 1 through 70, inclusive</u>	Superior Court of the State of California, County of Sacramento	03AS02618	Deposition Trial	May 2005 September 2005	Defendant

CHARLES R. MAHLA, Ph.D.
Prior Testimony

Econ One Research, Inc.
Sacramento, California

	Proceeding	Court/Commission/Agency	Docket or File	Deposition/Trial	Date	On Behalf Of
9.	<u>Laressia Carr v. Washington Mutual Bank, Does 1 through 20, inclusive</u>	Superior Court of the State of California, County of Merced	147677	Deposition Trial	July 2005 June 2006	Plaintiff
10.	<u>Bennett C. Clark v. Trans-America Broadcasting Corporation, KAIL - TV/ UPN 53, and Does 1 through 20, inclusive</u>	Superior Court of the State of California, County of Fresno	03 CE CG 02218 DSB	Deposition	August 2005	Defendant
11.	<u>Mike Coakley v. Citigroup, Inc., California Federal Bank, and Does 1 through 6</u>	Superior Court of the State of California, County of Sacramento	04AS01233	Deposition	October 2005	Plaintiff
12.	<u>Laina M. Crew v. Burns International Security Services, Pinkerton Security Services, Securitas Corporation, et al.</u>	Superior Court of the State of California, County of Sacramento	02AS06558	Deposition	November 2005	Plaintiff
13.	<u>Lillie Armistead v. Concentra Health Services, Inc. dba Concentra Medical Center, and Does 1-20, inclusive</u>	Superior Court of the State of California, County of Fresno	No. 05CECG00768 DSB	Deposition	April 2006	Defendant
14.	<u>Samson Seidel v. KFM, Kiewit Pacific Company, FCI Constructors, Inc., Manson Construction, and Does 1-25, inclusive</u>	Superior Court of the State of California, County of Alameda	No. RG 04 183979	Deposition	April 2006	Plaintiff
15.	<u>Matthew L. Ribera v. New York Life Insurance Company and NYLife Securities, Inc.; Kenneth Hower, and Does 1-10</u>	Superior Court of the State of California, County of Fresno	No. 04 CE CG 02783	Deposition	October 2006	Defendant
16.	<u>Suzanne L. Dean v. Cleve Morris, George Logan, City of Patterson, and Does 1-50, Inclusive</u>	Superior Court of the State of California, In and For the County of Stanislaus	No. 372905	Deposition	January 2007	Plaintiff
17.	<u>Krishna Ujagar v. Campbell's Soup Company, and Does 1-100, Inclusive</u>	United States District Court, Eastern District of California	Case No. 2:05-cv-674 LLK DAD	Deposition	March 2007	Plaintiff
18.	<u>Kiran Pande v. Chevron International Exploration and Production Company and Chevron Corporation</u>	United States District Court, Northern District of California	Case No.: C 04 5107 CW	Deposition Trial	May 2007 October 2007	Plaintiff

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19.	<u>Charles Timmons v. United Parcel Service, Inc.</u>	United States District Court, Eastern District of California	Case No.: 2:05-CV-2175-MCE-EFB	Deposition Deposition Trial	May 2007 April 2010 August 2010	Plaintiff
20.	<u>Adrienne Bolsega v. Marriott International, Inc.; Renaissance Hotel Operating Company; Chris Steuri; and Dave Dolquist</u>	Superior Court of the State of California, County of San Francisco	Case No.: CGC 05 445064	Deposition	May 2007	Plaintiff
21.	<u>Julie O'Leary v. Western Pacific Housing Management, Inc. dba D.R. Horton; Joe Hoban; Kim Cole; and D.R. Horton, Inc.</u>	Superior Court of the State of California, In and For the County of Contra Costa	Case No.: 06-00639	Deposition	June 2007	Plaintiff
22.	<u>Jane Mootz v. State of California, Department of Corrections, Brian Evans, Randy Sherrer, and Does 1-20, Inclusive</u>	Superior Court of the State of California, County of Sacramento	Case No.: 05AS04214	Deposition Trial	June 2007 March 2008	Plaintiff
23.	<u>Elizabeth Wanda Gallegos v. Sutter Health</u>	Superior Court of the State of California, County of Sacramento	Case No.: 05AS03786	Deposition Trial	July 2007 September 2008	Plaintiff
24.	<u>Tracy Robinson v. The DIRECTV Group, Terry Benedict, et al.</u>	Judicial Arbitration and Mediation Service (JAMS)	Case No. 1220036947	Deposition Arbitration	February 2008 February 2008	Plaintiff
25.	<u>Gina E. Gomez v. Longs Drug Stores and Daniel Dekker</u>	Superior Court of the State of California, County of Fresno, Central Division	No.: 06 CE CG 03774 MWS	Deposition	February 2008	Defendant
26.	<u>John Reese v. Time Warner Telecom Holdings, Inc.</u>	United States District Court, Northern District of California	No.: CGC07-460775	Deposition	July 2008	Plaintiff
27.	<u>David Palumbo v. CTB/McGraw-Hill, LLC; The McGraw Hill Companies, Inc. and Does 1-10</u>	Superior Court of the State of California, County of San Francisco	Case No.: CGC-07-459665	Deposition	September 2008	Plaintiff
28.	<u>James Robinson v. Wave Division Holdings, LLC</u>	Superior Court of the State of California, County of San Mateo	No.: CIV 467905	Deposition Trial	September 2008 November 2008	Plaintiff

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29.	<u>Lucille Epperson v. Janice M. Harshman, Hope Manor, Inc.</u>	Superior Court of the State of California, County of Fresno	Case No.: 07CECG 02718 DSB	Deposition	October 2008	Defendant
30.	<u>Richard Homem v. Humboldt Creamery Association</u>	Superior Court of the State of California, County of Humboldt	Case No.: DR070718	Deposition Trial	October 2008 November 2009	Plaintiff
31.	<u>Marcine Blough v. Menlo College, James Missett, M.D., Ph.D.</u>	Superior Court of the State of California, County of San Mateo	Case No.: CIV 465027	Deposition Trial	November 2008 December 2008	Plaintiff
32.	<u>Barrington G. Henry v. Grant Joint Union High School District</u>	Superior Court of the State of California, County of Sacramento	Case No.: 06AS02922	Deposition	December 2008	Defendant
33.	<u>Randy Cosby v. Autozone, Inc., Jim Kulbacki, et al.</u>	United States District Court, Eastern District of California	Case No.: 2:08-CV-00505-LKK-DAD	Deposition Trial	May 2009 February 2010	Plaintiff
34.	<u>Tamer Mamou v. Trendwest Resorts, Inc., Kevin Fiore, and Does 1 through 10, inclusive</u>	Superior Court of the State of California, County of Santa Clara	Case No.: 1-05-CV-053162	Deposition Trial	June 2009 July 2009	Plaintiff
35.	<u>Eric Toscano v. Society for the Protection of Cruelty to Animals; Norm Minson; and Amanda Allen</u>	Superior Court of the State of California, County of Fresno	Case No.: 08 CE CG 001164 DRF	Deposition Trial	July 2009 July 2009	Defendant
36.	<u>James Rodriguez v. State of California, Department of Justice</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2008-00007351	Deposition Trial	August 2009 January 2010	Plaintiff
37.	<u>Brenda Gonzalez v. Suncoast Post-Tension, L.P., Edwin Dillon and Does 1-50 Inclusive</u>	Superior Court of the State of California, County of Yolo	Case No.: CV 07-2795	Deposition Trial	February 2010 March 2010	Plaintiff
38.	<u>Amanda Baum v. Sunbridge Paradise Rehabilitation Center, Inc., dba Sunbridge Care Center for Paradise, Sun Health Care Group, Inc., and Sunbridge Healthcare Corporation</u>	Superior Court of the State of California, County of Butte	Case No.: 147613	Deposition	October 2010	Plaintiff

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39.	<u>Raleigh Bowen v. State of California, Department of Justice, James Parker, Craig Buehler, and Brent Orick</u>	Superior Court of the State of California, County of Sacramento	Case No.: 07AS03120	Deposition Trial	October 2010 April 2011	Plaintiff
40.	<u>Gerald R. Zimmerer v. Netgear, Inc.</u>	Superior Court of the State of California, County of Santa Clara	Case No.: 109CV142142	Deposition	November 2010	Defendant
41.	<u>Andrea West v. City of Sacramento</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2007-000883103	Deposition	January 2011	Plaintiff
42.	<u>Jon Meek v. County of Tehama</u>	Superior Court of the State of California, County of Tehama	Case No.: 57054	Deposition	January 2011	Plaintiff
43.	<u>Michelle Carpenter v. Forrest Meadows Owners Association</u>	United States District Court, in and for the Eastern District of California	Case No.: 1:09-CV-01918-LJO-DLB	Deposition Trial	January 2011 August 2011	Plaintiff
44.	<u>Marcy Passuello, Rhonda Bristow-Vermillion v. Sierra Community College District</u>	Superior Court of the State of California, County of Placer	Case No.: SCV 26583	Deposition Trial	February 2011 June 2012	Plaintiff
45.	<u>Roy D. Taylor, Arletha Flud, Thomas J. Wood, Ernest C. Harvey, II, individually, and on behalf of all others similarly situated v. FedEx Freight, Inc.</u>	United States District Court, Northern District of California, San Jose Division	Case No.: 5:10-CV-02118 LHK	Deposition	February 2011	Plaintiff
46.	<u>Annette Leonardi v. Five Star Quality Care, Inc., Somerford Place, Inc.</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2009-00055390	Deposition Trial	March 2011 May 2011	Plaintiff
47.	<u>Terralyn N. Renfro v. California Department of Corrections and Rehabilitation, Katherine Powell</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2008-00002606-CU-OE-GDS	Deposition Trial	April 2011 October 2011	Plaintiff
48.	<u>Medro Johnson v. Sears Roebuck and Company, Sears Home Improvement Products, Inc., Paul St. Hilaire, Sears Holdings Corp.</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2009-00054053	Deposition Trial	April 2011 October 2011	Plaintiff

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49.	<u>Laurie Gibbs Harris v. Northwestern Investment Management Company, LLC, Northwestern Mutual Life Insurance Company</u>	United States District Court, in and for the Northern District of California	Case No.: 10-01763 CW	Deposition	September 2011	Plaintiff
50.	<u>Robert Hibble v. EVA Care Group, LLC; Kit Carson, LLC; Ray Properties Kit Carson, Inc. dba Kit Carson Nursing and Rehabilitation Center</u>	Superior Court of the State of California, County of Amador	Case No.: 09-CV-6347	Deposition	September 2011	Plaintiff
51.	<u>Jonie Sweeney v. Hewlett Packard Company</u>	Superior Court of the State of California, County of Placer	Case No.: SCV0027899	Deposition	November 2011	Plaintiff
52.	<u>Danny Webb v. Ramos Oil, Inc.</u>	Superior Court of the State of California, County of Yolo	Case No.: CV09-521	Deposition Trial	December 2011 July 2012	Plaintiff
53.	<u>Sophia Hussein v. Farmers Group, Inc., Farmers Insurance Exchange</u>	Superior Court of the State of California, County of Alameda	Case No.: 10541948	Deposition Trial	January 2012 March 2012	Plaintiff
54.	<u>Jerome K. Cromwell v. John L. Sullivan Chevrolet, Inc.</u>	Superior Court of the State of California, County of Placer	Case No.: SCV25399	Deposition	February 2012	Plaintiff
55.	<u>Ahmad S. Mahmoud v. Brinks, Inc. and Ben Berry</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2010-00075279	Deposition	February 2012	Plaintiff
56.	<u>Ani Chopourian v. Catholic Healthcare West, and Mercy General Hospital</u>	In the United States District Court in and for the Eastern District of California	Case No.: 2:09-cv-02972-GEB-DAD	Trial	February 2012	Plaintiff
57.	<u>Randy Hanson v. Tom Cable and The Oakland Raiders</u>	Arbitration Tribunal Under the Jurisdiction of the Commissioner of the National Football League	Assigned to: Yaroslav Sochynsky	Deposition Arbitration	February 2012 February 2012	Plaintiff

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58.	<u>Rosalind Lopez v. Wal-Mart Stores, Inc.</u>	In the United States District Court for the Northern District of California	Case No.: CV11-01632 LHK PSG	Deposition	April 2012	Defendant
59.	<u>Lynette Van Vranken v. First American Title Company</u>	Superior Court of the State of California, County of Fresno	Case No.: 11CECG00203	Deposition Trial	June 2012 July 2012	Defendant
60.	<u>Julie Zan v. Safeway, Inc.</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2010-00080477	Deposition	June 2012	Plaintiff
61.	<u>Ned A. Smull v. Bank of Agriculture & Commerce</u>	Superior Court of the State of California, County of San Joaquin	Case No.: 39-2011-00265859-CU-WT-STK	Deposition	July 2012	Plaintiff
62.	<u>Kim Widdifield v. Macy's Department Stores, Inc.</u>	In the United States District Court for the Eastern District of California	Case No.: 2:11-cv-01752-WBS-GGH	Deposition	August 2012	Plaintiff
63.	<u>Frank Biaggi and Bret Menze v. Harold Huffsteller, AAA Life, et al.</u>	Superior Court of the State of California, County of Sonoma	Case No.: SCV 249-447	Deposition Trial	September 2012 October 2012	Defendant
64.	<u>Eileen Blagden v. ABC Unified School District, Gary Smuts, and Carol Hansen</u>	Superior Court of the State of California, County of Los Angeles	Case No.: BC448198	Deposition	October 2012	Plaintiff
65.	<u>Quintin Redmond and Roslyn Blackwell v. Friendfinder Networks, Inc.; Various, Inc.; Sean Christian and Suzanne Bryce</u>	Superior Court of the State of California, County of Santa Clara	Case No.: 110CV175191	Deposition	November 2012	Defendant
66.	<u>Calvin Chang v. The Regents of the University of California; Annette Spicuzza; and Robert Sotelo</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2009-00033484-CU-OE-GDS	Trial	December 2012	Defendant

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67.	<u>Benjamin C. Oyarzo, Nicholas Hart v. Tuolumne Fire District (AKA "Tuolumne Fire Protection District"), Joseph Turner, Kenneth Hockett, Brian Machado, Darlene Hutchins, and Toney Powers</u>	In the United States District Court for the Eastern District of California	Case No.: 1:11-CV-01271-LJO-DLB	Deposition Trial	January 2013 December 2013	Plaintiff
68.	<u>Mark Bonin and Johathan Vargas v. Burger Bar San Francisco, LLC</u>	Superior Court of the State of California, County of San Francisco	Case No.: CGC-11-516636	Deposition	March 2013	Defendant
69.	<u>Janis Trulsson v. County of San Joaquin, The District Attorney's Office</u>	In the United States District Court for the Eastern District of California--Sacramento Branch	Case No.: 2:11-CV-02986-KJM-DAD	Deposition Trial	April 2013 March 2014	Plaintiff
70.	<u>Robert M. Sallustio v. Kemper Independence Insurance Company, Unitrin Kemper Auto and Home Insurance, Alan Kikuyama, et al.</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2007-00882286-CU-WT-GDS	Deposition Trial Trial (Punitive Damages)	May 2013 April 2014 May 2014	Plaintiff
71.	<u>Jean Small v. John H. Sullivan, MD, Inc., dba Eye Medical Clinic, et al.</u>	Superior Court of the State of California, County of Santa Clara	Case No.: 111 CV 212812	Deposition Trial	June 2013 August 2013	Plaintiff
72.	<u>Jasmine Bowers, M.D. v. Eric Shinseki, Secretary, Department of Veterans Affairs</u>	United States District Court, Central District of California	Case No. CV12-09362 SVW(SHx)	Deposition	August 2013	Plaintiff
73.	<u>Boyce Jeffries v. City of Galt</u>	Superior Court of the State of California, County of Sacramento	Case No. 34-2011-00115333	Deposition Trial	October 2013 December 2013	Plaintiff
74.	<u>Diane Thomas-Young v. Sutter Central Valley Hospitals dba Memorial Medical Center</u>	United States District Court, Eastern District of California	Case No. 1:12-CV-01410-AWI-SKO	Deposition	October 2013	Plaintiff
75.	<u>Richard Leon, Jr. v. Tri Counties Bank</u>	United States District Court, Eastern District of California	Case No. 2:12-CV-01529-JAM-AC	Deposition	February 2014	Plaintiff

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76.	<u>Estate of Charles Robert Fitzgerald, Daniel Abina, Kimberly Cline, Carolyn Cuellar, Joseph Cuellar, Max Devivo, Dennis Horton, Larry Dale Manning, Joyce Ringgold, and Robert Santarini v. California State Automobile Association, California State Automobile Association Inter-Insurance Bureau</u>	Superior Court of the State of California, County of Contra Costa	Case No. C 10-03173	Deposition	February 2014	Plaintiff
77.	<u>Janet Keyzer v. Regents of the University of California</u>	Superior Court of the State of California, County of Sacramento	Case No. 34-2010-0079869	Deposition Trial	February 2014 July 2014	Plaintiff
78.	<u>Tricia Hennessey and Youa Her v. Bank of America, Danny Villacis</u>	Superior Court of the State of California, County of Fresno	Case No. 12CECG02974	Deposition Deposition Trial	March 2014 January 2015 July 2015	Plaintiff
79.	<u>Thomas Hennighan v. Insphere Insurance Solutions, Inc.; Healthmarkets, Inc.; The Blackstone Group L.P.; Goldman Sachs Capital Partners; and DLJ Merchant Banking Partners</u>	United States District Court, Northern District of California	Case No. 3:13-cv-00638-JST	Deposition	April 2014	Plaintiff
80.	<u>Monica Neely v. Union Bank</u>	Superior Court of the State of California, County of San Joaquin	Case No. 39-2012-00277948-CU-WT-STK	Deposition	April 2014	Plaintiff
81.	<u>Elaine Wang v. Rees Scientific Corporation</u>	Superior Court of the State of California, County of San Francisco	Case No. CGC-13-528233	Deposition Trial	May 2014 June 2014	Plaintiff
82.	<u>Regina Brink v. Sacramento Society for the Blind, Heather Frank, and Penny Riley</u>	Superior Court of the State of California, County of Sacramento	Case No. 34-2012-00121616	Deposition	May 2014	Plaintiff

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83.	<u>Celia Hartnett v. Forensic Analytical Specialties, Inc.; Forensic Analytical Sciences, Inc.; Forensic Analytical Laboratories, Inc.; Forensic Analytical Consulting Services, Inc.; and David Kahane</u>	Superior Court of the State of California, County of Alameda	Case No. RG12641644	Deposition Trial	June 2014 July 2014	Defendant
84.	<u>Joseph K. Thorne v. California Department of Transportation</u>	Superior Court of the State of California, County of Humboldt	Case No. DR090926	Deposition	August 2014	Plaintiff
85.	<u>Timothy Joseph v. Target Corporation; Debbie Heeke; and Sonya Moore</u>	United States District Court, Eastern District of California	Case No. 2:12-cv-01962-KJM-EFB	Deposition	September 2014	Plaintiff
86.	<u>Juan Nava v. Safeway, Inc.</u>	Superior Court of the State of California, County of Merced	Case No. CV001882	Deposition	September 2014	Defendant
87.	<u>Steven Brisson and Laura Maness v. Propane Studio LLC, Neil Chaudhari, Rahul Odedra, Lilu Odedra, and Michelle Viray</u>	Superior Court of the State of California, County of San Francisco	Case No. 1850892	Deposition Trial	October 2014 November 2014	Plaintiff
88.	<u>Joanne M. Pepin v. Kelly-Moore Paint Company, Inc., Debbie Culmer, and David Legnosky</u>	Superior Court of the State of California, County of Sacramento	Case No. 34-2012-00122208	Deposition	October 2014	Plaintiff
89.	<u>Emily Simone, Teal Knapp, Linda Marie Torres, and Sheila Spencer v. Guide Dogs for the Blind, Inc.</u>	Arbitration Before Hon. Raul Ramirez		Arbitration	November 2014	Plaintiff
90.	<u>Teresa Holden v. Wittman Enterprises, LLC</u>	Superior Court of the State of California, County of Sacramento	Case No. 34-2012-00131558	Deposition	February 2015	Plaintiff
91.	<u>Janus "Jan" Bogdanski v. NanoPrecision Products, Inc.</u>	Superior Court of the State of California, County of Los Angeles	Case No. BC528228	Deposition Trial	March 2015 April 2015	Plaintiff

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92.	<u>Tad Furutsuki v. Cisco Systems, Inc.</u>	Judicial Arbitration and Mediation Service (JAMS)	JAMS Case No. 1110016574	Arbitration	March 2015	Plaintiff
93.	<u>Luis Morales v. Kindred Healthcare Operating, Inc.; Kindred Healthcare, Inc.; KND 53, LLC; KND Development 53, LLC dba Kindred Hospital South Bay; Kevin Chavez, and Tunde Hrotko</u>	Superior Court of the State of California, County of Los Angeles	Case No.: BC 477842	Deposition	April 2015	Plaintiff
94.	<u>Kelly O'Haire v. City and County of San Francisco and Greg Suhr</u>	Superior Court of the State of California, County of San Francisco	Case No.: CGC-13-531419	Deposition	April 2015	Plaintiff
95.	<u>Joseph A. Smith v. Equinox Holdings, Inc.; Equinox Fitness Union Street, Inc.; Equinox Pine Street, Inc.</u>	United States District Court, Northern District of California	Case No.: 3:14-cv-00846 LB	Deposition Trial	April 2015 August 2015	Plaintiff
96.	<u>Kimberly Perry v. Egumball, Inc.</u>	Superior Court of the State of California, County of Orange	Case No.: 30-2013-00692868-CU-WT-CC	Deposition Trial	May 2015 June 2015	Plaintiff
97.	<u>Bryon Axt; Roy Mall v. Matthew Mezzetta; Darin Moore; Scott Rogers; Specialized Parts Planet, Inc.; Kermit Gilmore; Appa-Far, Inc.</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2010-00085697	Deposition	June 2015	Plaintiff
98.	<u>Jennifer Hollinger v. California Department of Corrections and Rehabilitation</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2012-00120270	Deposition Trial	June 2015 July 2015	Plaintiff
99.	<u>Fadi Saba v. Unisys Corporation</u>	United States District Court, Northern District of California	Case No.: 3:14-cv-01310-WHO	Deposition	July 2015	Plaintiff
100.	<u>David Lacagnina v. Comprehend Systems, Inc., Richard Morrison, and Jud Garner</u>	Superior Court of the State of California, County of San Mateo	Case No.: CIV 528251	Deposition Trial	July 2015 July 2015	Defendant
101.	<u>Ray Mauldin v. International Surfacing Systems, Valley Slurry Seal, and Basic Resources, Inc.</u>	Judicial Arbitration and Mediation Service (JAMS)	Case No.: 1100073486	Deposition Arbitration	September 2015 September 2015	Plaintiff

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102.	<u>Kimberly Bohnert v. The Archdiocese of San Francisco; Junipero Serra High School; et al.</u>	United States District Court, Northern District of California	Case No.: 3:14-cv-02854-WHO	Deposition	September 2015	Plaintiff
103.	<u>Janet Ochotorena v. California Department of State Hospitals and Alfred Sweet</u>	Superior Court of the State of California, County of San Luis Obispo, Paso Robles Branch	Case No.: 14CVP-0252	Deposition Trial	October 2015 January 2016	Plaintiff
104.	<u>Richard Fitzgerald v. El Dorado County; Sheriff John D'Agostini; Undersheriff Rich Williams</u>	United States District Court, Eastern District of California	Case No.: 2:12-cv-02932-MCE-KJN	Deposition Trial	October 2015 June 2016	Plaintiff
105.	<u>Debra Luhrsen v. Kindred Healthcare Operating, Inc.; Kindred Healthcare, Inc.; KND 53, LLC; KND Development 53, LLC dba Kindred Hospital South Bay; Kevin Chavez, and Tunde Hrotko</u>	Superior Court of the State of California, County of Los Angeles	Case No.: BC 477842	Deposition	October 2015	Plaintiff
106.	<u>Peter Albrecht v. Regents of the University of California; Paula Martin, R.N.; and Jessica Connor, M.S.W.</u>	Superior Court of the State of California, County of Orange	Case No.: 30-2013-00685473-CU-WT	Deposition	November 2015	Plaintiff
107.	<u>Francesco Isolani, M.D., Janey Kunkle, M.D., et al. v. Alameda Health System dba Highland General Hospital; Alameda County Employees' Retirement Association, et al.</u>	Superior Court of the State of California, County of Alameda	Case No.: RG13694735	Deposition	November 2015	Defendant
108.	<u>Todd Milan v. City of Vallejo</u>	Superior Court of the State of California, County of Solano	Case No.: FCS042585	Deposition Trial	December 2015 March 2016	Defendant
109.	<u>Alexander F. Harper v. County of Kern, Cynthia Norris, Melissa Allen, and Mark Pafford</u>	United States District Court, Eastern District of California	Case No.: 1:14-CV-01603-TLN-MJS	Deposition	February 2016	Defendant
110.	<u>Marilyn Martin v. County of San Joaquin, et al.</u>	United States District Court, Eastern District of California	Case No.: 2:14-CV-01632-MCE-DAD	Deposition	March 2016	Plaintiff
111.	<u>John R. Barrie and Deborah Griffiths v. California Department of Transportation</u>	Superior Court of the State of California, County of Nevada	Case No.: CU13-079359	Deposition Trial	March 2016 April 2017	Plaintiff

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112.	<u>Diana Wilson v. Katena Products, Inc., Innovative Ophthalmic Products, Inc., and ARXA 5 Corporation</u>	Superior Court of the State of California, County of Alameda	Case No.: RG14747825	Deposition	March 2016	Plaintiff
113.	<u>Grace Raskin v. Golden Pond Assisted Living L.P., Meghan Stine, Douglas Gill, Brian Walgenback</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2013-00153063	Deposition Trial	April 2016 June 2016	Plaintiff
114.	<u>Kevin Lynn v. Ryan U.S. Tax Services, LLC</u>	Superior Court of the State of California, County of Los Angeles	Case No.: BC577350	Deposition Trial	May 2016 June 2016	Plaintiff
115.	<u>Onalis Giunta v. State of California Department of Corrections and Rehabilitation</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2012-00137019	Deposition Trial	June 2016 July 2016	Plaintiff
116.	<u>Sarah Holshouser v. County of Modoc, Chester Robertson</u>	United States District Court, Eastern District of California	Case No.: 2:14-cv-02552-MCE-CKD	Deposition	July 2016	Plaintiff
117.	<u>George Choochagi v. Barracuda Networks, Inc.</u>	Superior Court of the State of California, County of Santa Clara	Case No.: 1-14-CV-270651	Deposition	July 2016	Defendant
118.	<u>Mark Armitage v. Board of Trustees of The California State University; Ernest Kwok, et al.</u>	Superior Court of the State of California, County of Los Angeles	Case No.: BC 552314	Deposition	July 2016	Plaintiff
119.	<u>Rachel Trejo v. Walmart Stores, Inc. and Sonja Gregory</u>	Superior Court of the State of California, County of Los Angeles	Case No.: BC 567082	Deposition	September 2016	Plaintiff
120.	<u>Jamie Schmidt, Debra Knowles, Elizabeth Sampson, and Ryan Henriouille v. Shasta County Marshal's Office and Joel Dean</u>	United States District Court, Eastern District of California	Case No.: 2:14-cv-02471-MCE	Deposition	September 2016	Defendant

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	Proceeding	Court/Commission/Agency	Docket or File	Deposition/Trial	Date	On Behalf Of
121.	<u>Audrey Smith v. Kaiser Foundation Health Plan, Inc.</u>	Superior Court of the State of California, County of Los Angeles	Case No.: BC584305	Deposition	October 2016	Plaintiff
122.	<u>Sharon M. Lynch v. Board of Trustees of the California State University and Lloyd Kitazono</u>	Superior Court of the State of California, County of Solano	Case No.: FCS043059	Deposition	October 2016	Plaintiff
123.	<u>Steve D. Franklin v. California Department of Transportation</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2014-00157641	Deposition Trial	November 2016 January 2017	Plaintiff
124.	<u>Jessica Amgwerd v. State of California, Department of Justice</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2014-00161305-CU-OE-GDS	Deposition Trial	November 2016 March 2017	Plaintiff
125.	<u>Anthony Tucker v. Cumulus Media, Inc., Media Partners, L.L.C., and CMP Susquehanna Corp.</u>	United States District Court, Northern District of California	Case No.: 3:15-cv-04996JD	Deposition	November 2016	Plaintiff
126.	<u>Brian Gruzalski v. FedEx Corporation; FedEx Corporate Services, Inc.; FedEx Express; Dexter Collier; and Kevin Kelly</u>	Superior Court of the State of California, County of Los Angeles (Central District)	Case No.: BC512638	Deposition Trial	December 2016 September 2018	Plaintiff
127.	<u>Greg Blatman v. City and County of San Francisco; San Francisco Fire Department; and Lori Kalos</u>	Superior Court of the State of California, County of San Francisco	Case No.: CGC 14-541248	Deposition	January 2017	Plaintiff
128.	<u>Rayda Santrach v. California Department of Corrections and Rehabilitation, Jerry Conn</u>	Superior Court of the State of California, County of Ventura	Case No.: 56-2013-00445941-CU-OE-VTA	Deposition	February 2017	Plaintiff
129.	<u>Greg Umamoto and Shirley Umamoto v. Insphere Insurance Solutions, Inc.</u>	Superior Court of the State of California, County of Santa Clara	Case No.: 1-12-CV-234443	Deposition	February 2017	Plaintiff
130.	<u>Timothy M. King v. U.S. Bank National Association, U.S. Bancorp, Kim Thakur</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2013-00154644	Deposition Trial Trial (Punitive Damages)	March 2017 April 2017 May 2017	Plaintiff

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131.	<u>Albert Engel, Jr. v. Jenny Lind Fire Protection District, Kim Olson</u>	Superior Court of the State of California, County of Calaveras	Case No.: 12CV38403	Deposition	April 2017	Plaintiff
132.	<u>Jessica Perkins v. Micro-Mode Products, Inc., Raynard Benitez</u>	Superior Court of the State of California, County of San Diego	Case No.: 37-2013-00066902-CU-OE-CTL	Deposition	May 2017	Plaintiff
133.	<u>Teresa Brown v. California Department of Corrections and Rehabilitation</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2015-00176321	Deposition Trial	May 2017 March 2018	Plaintiff
134.	<u>Chau Nguyen v. City of Riverside</u>	Superior Court of the State of California, County of Riverside	Case No.: RIC 1513309	Deposition Trial	May 2017 June 2017	Plaintiff
135.	<u>Stephen Colucci v. T-Mobile USA, Inc.; Brian Robson</u>	Superior Court of the State of California, County of San Bernardino	Case No.: CIVDS1502822	Deposition Trial	May 2017 August 2017	Plaintiff
136.	<u>Stanley V. Langevin; Mark Collins v. FedEx Corporation; Federal Express Corporation; Steven B. Sobczak; William Cusato; Jack Earls; Traci May-Hill; David Logan; and Frank Boortz</u>	Superior Court of the State of California, County of Los Angeles	Case No.: BC589594 (Case combined w/ Gruzalski v. FedEx Corp. after deposition)	Deposition	May 2017	Plaintiff
137.	<u>Dalas Gundersen v. Edward D. Jones & Co., L.P.</u>	Financial Industry Regulatory Authority (FINRA)	Case No.: 15-01751	Arbitration	May 2017	Plaintiff
138.	<u>Diana P. Blum, M.D. v. Sutter Health; Palo Alto Foundation Medical Group, Inc.; Palo Alto Medical Foundation</u>	Superior Court of the State of California, County of Santa Clara	Case No.: 115CV277582	Deposition Trial	June 2017 January 2018	Defendant
139.	<u>Daniel Chen, M.D., Ph.D. v. Regents of the University of California, Jennifer Pelkey</u>	Superior Court of the State of California, County of Los Angeles	Case No.: BC 598154	Deposition Trial	July 2017 February 2018	Plaintiff
140.	<u>Jarold G. Stokes v. Edward D. Jones & Co., L.P.</u>	Financial Industry Regulatory Authority (FINRA)	Case No.: 16-01231	Arbitration	October 2017	Plaintiff

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	Proceeding	Court/Commission/Agency	Docket or File	Deposition/Trial	Date	On Behalf Of
141.	<u>Thomas Gonzales v. The Citizens Police Complaint Commission; The City of Long Beach</u>	Superior Court of the State of California, County of Los Angeles--South District	Case No.: NC 053533	Deposition Trial	October 2017 August 2018	Plaintiff
142.	<u>Jennifer "Sami" Gros v. Valley Emergency Physicians Medical Group, Inc.; Dignity Health, Inc.; and Shannon Bernal</u>	Superior Court of the State of California, County of Los Angeles	Case No.: BC 627374	Deposition	February 2018	Plaintiff
143.	<u>Harris Khan v. Infor (US), Inc.; and Chris McDade</u>	Superior Court of the State of California, County of Orange	Case No.: 30-2016-00838251-CU-WT-CJC	Deposition Trial	February 2018 March 2018	Plaintiff
144.	<u>David Appelbaum v. Pacific Gas and Electric Company</u>	Superior Court of the State of California, County of San Francisco	Case No.: CGC-16-554142	Deposition	February 2018	Plaintiff
145.	<u>Tamre Del Valle v. Dignity Health, Inc., dba Community Hospital of San Bernardino; June Collison; Victoria Selby</u>	Superior Court of the State of California, County of San Bernardino	Case No.: CIVDS 1414148	Deposition Trial	February 2018 July 2018	Plaintiff
146.	<u>Jeannette Hall, Darrell Erickson, Odete Worthington, and David Gonzales v. The Permanente Medical Group, Inc.; Kaiser Foundation Health Plan, Inc.; Kaiser Foundation Hospitals</u>	Superior Court of the State of California, County of Alameda	Case No. RG 15764991	Deposition	February 2018	Plaintiff
147.	<u>Eric Kenley, M.D.; Kenley Emergency Medicine Corporation v. CEP America-California; Chi Perloth, M.D.; Hartwell Lin, M.D.; Theo Koury, M.D.; and David Birdsall, M.D.</u>	Judicial Arbitration and Mediation Service (JAMS)	Case No.: 1120013743	Deposition	March 2018	Plaintiff
148.	<u>Robert Hendricks v. California State Employees' Association, California State Retirees, Tim Behrens, Rocco Paternoster</u>	Superior Court of the State of California, County of Sacramento	Case No. 34-2016-00201431-CU-BC-GDS	Deposition	March 2018	Plaintiff
149.	<u>Jace King v. County of Los Angeles</u>	Superior Court of the State of California, County of Los Angeles--Central	Case No.: BC640420	Deposition	April 2018	Plaintiff

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	Proceeding	Court/Commission/Agency	Docket or File	Deposition/Trial	Date	On Behalf Of
150.	<u>Gregg Carman v. C3, Inc., dba C3 Energy</u>	Superior Court of the State of California, County of Santa Clara	Case No.: 114-CV-274598	Deposition Trial	June 2018 July 2018	Plaintiff
151.	<u>Shanda Morgan v. Corona Norco Unified School District; Michael H. Lin; Samuel Buenrostro; Kevin H. Lee</u>	Superior Court of the State of California, County of Riverside	Case No.: RIC 1602934	Deposition	July 2018	Plaintiff
152.	<u>Michael Asberry v. County of Sacramento</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2015-00186194	Deposition Trial	July 2018 September 2018	Plaintiff
153.	<u>Jan Weber, M.D. v. County of Santa Clara, et al.</u>	Superior Court of the State of California, County of Santa Clara	Case No.: 1-15-CV-287977	Deposition Trial	August 2018 September 2018	Plaintiff
154.	<u>Timothy Pruitt v. Genentech, Inc.</u>	United States District Court, Eastern District of California	Case No.: 2:17-CV-00822-JAM-AC	Deposition Trial	September 2018 April 2019	Plaintiff
155.	<u>Sherri Atteberry v. California Department of Corrections and Rehabilitation dba Correctional Training Facility Soledad</u>	Superior Court of the State of California, County of Monterey	Case No.: 16CV003800	Deposition	September 2018	Plaintiff
156.	<u>Krishna Dave v. Fountain Valley Regional Hospital and Medical Center; Michael Melendrez</u>	American Arbitration Association	Case No.: 01-17-0002-9205	Deposition Arbitration	September 2018 October 2018	Plaintiff
157.	<u>Jared Hartstein v. City of La Habra Heights, Zachary Talbert, Michael Stokes, and Jake Minnehan</u>	Superior Court of the State of California, County of Los Angeles	Case No.: BC 643384	Deposition	October 2018	Plaintiff
158.	<u>Guille De Martinez v. Golden Valley Health Centers</u>	Superior Court of the State of California, County of Stanislaus	Case No.: 2023432	Deposition	October 2018	Defendant
159.	<u>Glen Blackman v. Autozone, Inc.</u>	United States District Court, Eastern District of California	Case No.: 2:17-cv-00659-JAM-DB	Deposition	October 2018	Plaintiff
160.	<u>Stanley Vincent v. State of California, acting by and through The California Highway Patrol</u>	Superior Court of the State of California, County of Santa Barbara	Case No.: 16CV05599	Deposition Trial	October 2018 July 2019	Plaintiff

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161.	<u>Mandy Kazminy v. Dignity Health dba Woodland Memorial Hospital</u>	Superior Court of the State of California, County of Yolo	Case No.: CV 16-1989	Deposition Trial Trial (Punitive Damages)	November 2018 March 2019 April 2019	Plaintiff
162.	<u>Paul A. Ballestrasse v. Jeff B. Sessions, U.S. Attorney General</u>	United States District Court, Northern District of California	Case No.: 3:17-01875 SK	Deposition	November 2018	Plaintiff
163.	<u>Juvoni Sterling v. The County of Sacramento</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2016-00197058	Deposition Trial	January 2019 February 2019	Plaintiff
164.	<u>Mary Rossi v. Farmers Insurance, Farmers Insurance Exchange, Farmers Group, Inc.</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2015-00173977	Deposition Trial	January 2019 March 2019	Plaintiff
165.	<u>Marcella Crisan v. State of California, et al.</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2015-00174376	Deposition Trial	February 2019 April 2019	Plaintiff
166.	<u>Daniel Ridge v. Alameda Health System</u>	Superior Court of the State of California, County of Alameda	Case No.: 17847260	Deposition	February 2019	Plaintiff
167.	<u>Katherine Eidson v. Lawrence Berkeley National Laboratory, Board of Regents of The University of California</u>	Superior Court of the State of California, County of Alameda	Case No.: RG17856649	Deposition Trial	April 2019 May 2019	Plaintiff
168.	<u>Vannessa Scott-Allen v. KRM, Inc.; Thomas Keller; Michael Minnillo; French Laundry Restaurant; French Laundry Partners, L.P.; TKNYC, LLC</u>	Superior Court of the State of California, County of Napa	Case No.: 16-CV-000854	Deposition Trial	May 2019 June 2019	Defendant
169.	<u>Kofi Kessey, M.D., Ph.D. v. Los Robles Regional Medical Center d/b/a Los Robles Hospital and Medical Center; Hospital Corporation of America; HCA Holdings, Inc.</u>	Superior Court of the State of California, County of Ventura	Case No.: 56-2015-00469667-CU-MC-VTA	Deposition	May 2019	Plaintiff
170.	<u>Steve Sansen v. Aerojet Rocketdyne, Inc., Steve Hill</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2015-00175120-CU-WT-GDS	Deposition Trial	June 2019 July 2019	Plaintiff

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	Proceeding	Court/Commission/Agency	Docket or File	Deposition/Trial	Date	On Behalf Of
171.	<u>Stephanie Van De Motter; Sally Tillotson v. The Irvine Company, LLC; The Irvine Company Apartment Communities, Inc.; et al.</u>	Judicial Arbitration and Mediation Service (JAMS)	Case No.: 1220059645	Deposition Arbitration	August 2019 September 2019	Defendant
172.	<u>Debbiann Lewis v. Dignity Health, dba Mercy San Juan Medical Center</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2017-00205713-CU-WT-GDS	Deposition	August 2019	Plaintiff
173.	<u>Todd Bedingfield and Jack Hall v. American International Group, Inc.; AIG Asset Management (U.S.), LLC</u>	United States District Court, Central District of California	Case No.: 2:18-cv-04249 DSF (AFMx)	Deposition	August 2019	Plaintiff
174.	<u>Ryan Cordero v. Tadashi Shoji and Associates, Inc. and Tadashi Shoji</u>	Judicial Arbitration and Mediation Service (JAMS)	Case No.: 1220060219	Deposition	September 2019	Plaintiff
175.	<u>Laura Torres v. Employment Development Department; Pia Bennett</u>	Superior Court of the State of California, County of San Francisco	Case No.: CGC-17-560478	Deposition	September 2019	Plaintiff

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<u>General Damage Disputes</u>					
1. <u>Cartel Cellular, Inc.; Michael Murphy; Emanuel Balalis v. AT&T Wireless Services of California, Inc.; Robert Woods; Robert Woods; Tom Walker</u>	US Bankruptcy Court, Eastern District of California	96-2807-B	Deposition Arbitration	March 1998 March 1998	Defendant
2. <u>Raymond Zarins, M.D., Inc. v. Aeroback Medical Group, Inc., et al.</u>	Superior Court of the State of California in and for the County of Orange	778535	Trial	November 1998	Defendant
3. <u>Play Industries, a California corporation d/b/a Play Inc. v. Minolta Corporation, a Delaware corporation</u>	United States District Court, Eastern District of California	CIV-S-97-1505 EJC/DAD	Deposition	May 1999	Plaintiff
4. <u>Robert Lovejoy, individually and dba Lovejoy Drilling v. AT&T Corporation</u>	Superior Court of the State of California in and for the County of Shasta	133545	Deposition	September 1999	Defendant
5. <u>James Kinnicutt, Susan Kinnicutt v. Bikers Dream, Inc., a corporation, Kraig Kavanagh, William G. Gresher, Jeffrey Simons, and DOES 1 through 50</u>	Superior Court of the State of California in and for the County of Sacramento	98ASO4185	Deposition Trial	November 1999 December 1999	Defendant
6. <u>Gulf Communications, L.L.C. v. Business Telecom, Inc., d/b/a BTI Telecommunications Services</u>	United States District Court for the Northern District of Texas, Dallas Division	398CV2444-G	Deposition	March 2000	Defendant
7. <u>AT&T Wireless Services of California, Inc., a Delaware Corporation v. Joseph Louis Pecora, III</u>	United States Bankruptcy Court, Central District of California--Northern Division	ND 98-16044-RR	Trial	May 2000	Plaintiff
8. <u>Biomedical Systems Corporation v. GE Marquette Medical Systems, Inc.</u>	United States District Court Eastern District of Missouri, Eastern Division	4:99CV01590 CAS	Deposition Deposition Trial	October 2000 March 2001 April 2001	Defendant

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9.	<u>SOS Wireless Communications, Inc. v. Rockwell Collins, Inc. and Hughes Electronics Manufacturing Service Company</u>	Superior Court of the State of California in and for the County of Orange	80 44 28	Deposition Arbitration Arbitration	December 2000 May 2001 June 2001	Defendant
10.	<u>Holt Electric Supplies, Inc. v. General Electric Company and Darren Sneed</u>	Circuit Court for the Twentieth Judicial Circuit, St. Clair County, Illinois	98-L-0819A	Trial	June 2002	Defendant
11.	<u>Talat S. Siddiqui, Walter J. Williams, and Amna Capital Corporation v. The Prudential Real Estate Affiliates, Inc. and Mason-McDuffie Real Estate, Inc.</u>	Superior Court of the State of California in and for the County of Sacramento	02CC05695	Deposition	November 2002	Plaintiff
12.	<u>The Consulting Group, Inc. v. Cingular Wireless LLC</u>	United States District Court for the Central District Court of California, Southern Division	SACV 03-109 DOC (MLGx)	Deposition	October 2004	Plaintiff
13.	<u>Petrovich Development Company, LLC, v. Michael F. Smolich, Judith Smolich, and Does 1-25, inclusive</u>	Superior Court of the State of California, County of Sacramento	No. 04AS04802	Deposition	October 2006	Plaintiff
14.	<u>Jeremy M. Jones and Patricia L. Jones, As Co-Trustees of the Jones Family Trust; and John E. Kreitler, As Trustee of the Jones Family Trust v. PriceWaterhouseCoopers, LLP</u>	Supreme Court of the State of New York, County of New York	No. 03-602962	Deposition	December 2006	Plaintiff
15.	<u>All American Towing and Transport, Inc., Katherine Neves, and Loren Oest v. State of California by the California Highway Patrol, et al.</u>	Superior Court of the State of California, County of Placer	No. SCV 18824	Deposition	April 2007	Defendant
16.	<u>Wilbanks & Associates, Inc., v. Sidney Kohl, Coventry First, LLC</u>	American Arbitration Association	No.: 14 181 Y 02002 05	Arbitration	October 2007	Plaintiff
17.	<u>Sierra Ridge Investors, LLC, Fulton Village Green Investors, LLC, and Sabrina Sierra, LLC v. Northwest Land Company, Inc., et al.</u>	Superior Court of the State of California, County of Placer	No.: SCV 17809	Deposition	January 2008	Defendant

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18.	<u>Sharon Tjian in her Capacity as Executor of the Estate of Hans Tjian v. Westamerica Bancorporation and Community Bankers Service Corporation</u>	Superior Court of the State of California, County of Alameda	No.: RG06270362	Deposition Trial	February 2008 December 2008	Plaintiff
19.	<u>In Re Shahab Eddin Fotouhi, Debtor; Paul Mansdorf, Trustee v. Darren Eps, Wendy L. Hillger, and Michael J. Gilroy</u>	United States Bankruptcy Court for the Northern District of California, Oakland Division	Case No. 05-44893 RN-7	Trial	April 2009	Defendant
20.	<u>Christopher Jude Ricci v. Daniel C. Dorsey</u>	United States District Court, Eastern District of California	Case No. 2:08-CV-00060-FCD-KJM	Deposition Deposition	April 2009 March 2010	Plaintiff
21.	<u>Renwood Winery, Inc. v. W.J. Deutsch & Sons, Ltd.</u>	Judicial Arbitration and Mediation Service (JAMS)	Case No. 1130004263	Deposition Arbitration	May 2009 May 2009	Plaintiff
22.	<u>Arol G. Ryel; The Ryel Family Trust; Ryel Family, LLC v. Frank Cuttone; Cuttone & Co., Inc.; FJC Investments, LLC</u>	Superior Court of the State of California, County of Merced	Case No. CU 151904	Deposition	May 2010	Defendant
23.	<u>Golden State Warriors, LLC v. Oakland-Alameda County Coliseum Inc., Oakland-Alameda County Coliseum Authority</u>	Judicial Arbitration and Mediation Service (JAMS)	Ref. No.: 1100060232	Deposition	February 2011	Defendant
24.	<u>Jeffrey S. Karan and WCP Securities, LLC v. Gregory A. Bonifiglio</u>	Superior Court of the State of California, County of San Mateo	Case No.: CIV 495660	Deposition	February 2012	Defendant
25.	<u>Mandana Farhang v. Jose R. Allen; Skadden, Arps, Slate, Meagher & Flom, LLP; et al.</u>	Superior Court of the State of California, County of San Francisco	Case No.: CGC-09-492063	Deposition	January 2014	Plaintiff
26.	<u>MJK Properties, Inc. v. Greenspan Adjusters International, Morris General Contracting, Inc., California Capital Insurance Co., Gary Johnson, Donald Fairchild, and John Hagerty</u>	Superior Court of the State of California, County of Solano	Case No.: FCS037119	Deposition	February 2014	Defendant

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27.	<u>DNJ Property Management Services, Inc. dba Common Interest Management Services, Inc. and Michael Archer v. Douglas Christison and Christison Company</u>	Superior Court of the State of California, County of Contra Costa	Case No.: C11-01567	Deposition	October 2014	Plaintiff
28.	<u>Erik Medal, Kenneth Herrera, Brent Rago, Chris Silva, Larry Kuntz, and Aaron Quaintance v. Earthgrains Distribution, LLC and BBU, Inc.</u>	Judicial Arbitration and Mediation Service (JAMS)	Ref. No.: 1100073898	Deposition Arbitration	January 2015 February 2015	Plaintiff
29.	<u>Image International Manufacturing, Inc., d/b/a Image Skincare v. Lira Cosmeceutical, Inc.; Metaxia Dalikas; et al.</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-13-00146522	Deposition Trial	June 2015 August 2015	Plaintiff
30.	<u>Mooney Star Farms, LLC; and the Morning Star Company v. Mooney Farms; Steven Mooney; and Mary Mooney</u>	Judicial Arbitration and Mediation Service (JAMS)	Ref. No.: 1100079131	Deposition	December 2015	Plaintiff
31.	<u>EPAC Technologies, Inc. v. Thomas Nelson, Inc.</u>	United States District Court, Middle District of Tennessee, Nashville Division	Case No.: 3:12-cv-00463	Deposition Trial	September 2018 January 2019	Plaintiff
32.	<u>Wells Fargo Insurance Services USA, Inc. v. Nicholas Donovan, Julie Branstetter, Yvonne Galvan, and Soe Win</u>	Superior Court of the State of California, County of Los Angeles	Case No.: BC673582	Deposition	October 2018	Defendant
33.	<u>Ali Tavana v. The Cochran Firm; Robert Torres; Harry Sadheghi; Law Offices of Harry Sadheghi & Associates; Mancini & Associates; Marcus Mancini</u>	Superior Court of the State of California, County of Los Angeles	Case No.: BC611304	Trial	September 2019	Plaintiff

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<u>Intellectual Property</u>					
1. <u>Leneda, Inc. v. Neptune Society of America, Inc., et al.</u>	United States District Court, Central District of California	00-05216 GAF AIJx	Deposition	July 2001	Plaintiff
2. <u>CE Resource, Inc. v. National Center for Continuing Education, Inc.</u>	In the United States District Court in and for the Eastern District of California	CIV.S-01-1796 DFL PAN	Deposition	October 2002	Defendant
3. <u>Christopher V. Martin; Martin Manufacturing v. Currie Technologies, Inc., Sam's Club</u>	United States District Court, Central District of California	CV02-7739-SVW (VBKx)	Deposition	April 2003	Defendant
4. <u>DSU Medical Corporation and Medisystems Corporation v. JMS Co., JMS North America Corporation and ITL Corp. PTY, Ltd.</u>	United States District Court, Northern District of California, Oakland Division	C00-1826-DLJ, C99-2690-DLJ	Deposition Trial	July 2003 March 2004	Defendant
5. <u>Groeniger & Company v. Ferguson Enterprises, Inc., Rick Gohr, James Baize, Larry Dickerson, and Jeff Hodson and Does 1-20, inclusive</u>	Superior Court of the State of California, County of Kern	No. 253924 AEW	Deposition Trial	September 2006 May 2007	Defendant
6. <u>Trimble Navigation Limited v. RHS, Inc., CSI Wireless, Inc., and Hemisphere GPS (formerly Satloc, LLC)</u>	United States District Court, Northern District of California, San Francisco Division	Case No.: C 03-01604 PJH (EDL)	Deposition	July 2007	Defendant
7. <u>Rowe International Corp., and Arachnid, Inc. v. Ecast, Inc., Rock-Ola Manufacturing Corp., and View Interactive Entertainment Corp.</u>	United States District Court, Northern District of Illinois, Eastern Division	Case No. 1:06-cv-02703	Deposition	January 2008	Defendant
8. <u>DealerTrack, Inc. v. RouteOne LLC, David L. Huber, and Finance Express LLC</u>	United States District Court, Central District of California, Southern Division	Case No.: CV06-2335 (FMOx)	Deposition	April 2008	Plaintiff

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	Proceeding	Court/Commission/Agency	Docket or File	Deposition/Trial	Date	On Behalf Of
9.	<u>Realtime Data, LLC d/b/a IXO v. Packeteer, Inc., Blue Coat Systems, Inc., Citrix Systems, Inc., et al.</u>	United States District Court, Eastern District of Texas, Tyler Division	Civil Action No.: 6:08-CV-00144 LED	Deposition	August 2009	Defendant
10.	<u>Primax Electronics Ltd. v KYE Systems America Corp.</u>	United States District Court, Central District of California	Case No.: CV 09-2821 RGK (FFMx)	Deposition	March 2010	Defendant/ Counterclaimant
11.	<u>BASF Agro B.V., Arnhem (NL), Wädenswil Branch, and Bayer S.A.S. v. Makhteshim Agan of North America, Inc., and Control Solutions, Inc.</u>	United States District Court, Middle District of North Carolina	Civil Action No.: 10-276	Preliminary Injunction Hearing	May 2011	Defendant
12.	<u>Pixon, Inc. v. Citrix Systems, Inc., Citrix Online, LLC</u>	United States District Court, Northern District of California, San Francisco Division	Consolidated Case No.: CV11-00694-SI	Deposition	May 2012	Defendant
13.	<u>SSL Services, LLC v. Citrix Systems, Inc., Citrix Online, LLC</u>	United States District Court, Eastern District of Texas, Marshall Division	Civil Action No.: 2:08-cv-158-DF	Trial	June 2012	Defendant
14.	<u>Zylon Corp. and Alan Zamore v. Medtronic, Inc., Medtronic Vascular, Inc., and Medtronic Vascular Holdings Ltd. f/k/a AVE Galway Ltd.</u>	Supreme Court of the State of New York, County of New York	Index No.: 650523/2008	Deposition Trial	August 2012 January 2017	Plaintiff
15.	<u>Academy of Motion Picture Arts and Sciences v. GoDaddy.com, Inc.; The GoDaddy Group, Inc.; Domains By Proxy, Inc.; et al.</u>	United States District Court, Central District of California, Western Division	Case No.: 2:10-cv-03738 ABC (CWx)	Deposition Deposition	February 2013 January 2015	Plaintiff
16.	<u>Componex Corporation v. Electronics For Imaging, Inc.</u>	United States District Court, Western District of Wisconsin	Case No.: 3:13-cv-384-WMC	Deposition	October 2014	Defendant
17.	<u>Aribex, Inc. v. Dexcowin Global, Inc., and Dexcowin Co., Ltd.</u>	United States District Court, Central District of California, Southern Division	Case No.: 2:16-CV-00143-GW-AGR	Deposition	April 2017	Plaintiff

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	Proceeding	Court/Commission/Agency	Docket or File	Deposition/Trial	Date	On Behalf Of
<u>Medical Malpractice/Personal Injury/Wrongful Death</u>						
1.	<u>Leesa Bunch v. Hasbro, Inc., et al.</u>	Superior Court of the State of California in and for the County of Glenn	80534	Trial	August 2001	Plaintiff
2.	<u>In Re: Hawaii State Asbestos Cases; Charles T. Kusuno and Elsie M. Kusuno v. Owens - Illinois, etc. et al.</u>	In the Circuit Court of the First Circuit, State of Hawaii	01-1-1719-06 EEH	Deposition	September 2002	Plaintiff
3.	<u>Martha A. Rivera and Emanuel Rivera v. TSR Paging, Inc., et al.</u>	Superior Court of the State of California, County of Sacramento	00AS06104	Deposition	November 2003	Defendant
4.	<u>Kyong Fujii and Johnny Goodman v. Grove Worldwide, LLC, Pacific Machinery, Inc. et al.</u>	Circuit Court of the First Circuit, State of Hawaii	01-1-0494-02	Deposition	April 2004	Plaintiff
5.	<u>Steve Johnson v. Vineyard Gate Apartments AKA Gate Vineyard; Vineyard Gate Limited Liability Company; FPI Management; VPM, Inc.; Buetler Corporation; and Does 1-100</u>	Superior Court of the State of California, County of Sacramento	02AS07323	Deposition	August 2004	Defendant
6.	<u>Ric De Leon and Heather De Leon v. B.T. Mancini Company, Inc.; Brown Construction, Inc.; Sacramento City Unified School District; and Does 1 through 20, inclusive</u>	Superior Court of the State of California, County of Sacramento	02AS07796	Deposition Trial	January 2005 November 2005	Defendant
7.	<u>Richard L. Brown v. McCrary Construction Company, et al.</u>	Superior Court of the State of California, County of Santa Clara - Unlimited Jurisdiction	Action No. 103 CV 004 548	Deposition	August 2005	Defendant
8.	<u>Denise Cortelyou and Robert Cortelyou v. Orchard Supply Hardware Corporation, and Does I through X</u>	Superior Court of the State of California, County of Shasta	No. 152997	Deposition	January 2006	Defendant

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9.	<u>Cherie Adelle Whitney, et al. v. George Magnuson, et al.</u>	Superior Court of the State of California, County of Placer	No. SCV 14384	Deposition Trial	April 2006 April 2006	Plaintiff
10.	<u>Walter V. Miles; Walter A. Miles; Ethan J. Miles, a Minor, by and through his Guardian ad Litem Walter V. Miles, et al.</u>	Superior Court of the State of California, County of El Dorado	No. PC20050406	Deposition Trial	June 2006 August 2006	Plaintiff
11.	<u>Jose Juan Suarez; Maria Meraz Chavez; and Jose Guadalupe Suarez Sanchez v. Rodrigo Rosas; Jose Silva, individually and dba Tasinaxtla Trucking; and Does 1-50</u>	Superior Court of the State of California, County of Butte	No. 135333	Deposition	June 2006	Plaintiff
12.	<u>Joseph Anthony Sicilian v. Timothy James Heard; Davide B. Heard; and Does 1-50, inclusive</u>	Superior Court of the State of California, County of Sacramento	No. 04AS00423	Deposition	September 2006	Defendant
13.	<u>Stephan Mandell and Susanne Mandel v. San Juan Unified School District, Radjeep Singh Snadhu, and Does 1-20</u>	Superior Court of the State of California, County of Sacramento	No. 03AS03949	Deposition	October 2006	Defendant
14.	<u>Gary Polly and Lynne Polly v. Mark Hellner, M.D., and Does 1-50, inclusive</u>	Superior Court of the State of California, County of Merced	No. 148742	Deposition	November 2006	Plaintiff
15.	<u>Steven Lamb v. Allied Property and Casualty Insurance Co.</u>	Underinsured Motorist Claim (Arbitration)	Claim No. 84K67072	Deposition Arbitration	February 2007 February 2007	Plaintiff
16.	<u>Conrad Banez v. Tutor-Saliba/Koch/Tidewater, a Joint Venture, and Does 1-10, Inclusive</u>	Superior Court of the State of California, County of San Francisco	No. CGC-05-439790	Deposition Trial	February 2007 March 2007	Plaintiff
17.	<u>Douglas J. Conrad; James S. Sasser v. Super Service, Inc., Ricky D. Pearson and Does 1-30, Inclusive</u>	Superior Court of the State of California, County of Placer	No. SCV 18035	Deposition	March 2007	Plaintiff

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18.	<u>Marc Whiteside and Kim Whiteside v. Nikki L. Martin, M.D.; St. Joseph's Medical Center; Frank S. Callcott, M.D.; Kirti Solanki, M.D.; and Does 1-25, Inclusive</u>	Superior Court of the State of California, County of San Joaquin (Unlimited Jurisdiction)	No. CV 023432	Deposition Trial	April 2007 July 2008	Plaintiff
19.	<u>James Michael Lang and Michelle Lang v. Geweke Auto Mall, Inc.; Geweke Automotive Group, Inc.; Geweke Ford; Geweke Investment; Geweke Motors, Inc.; The Geweke Company; and Tim Willett</u>	Superior Court of the State of California, County of San Joaquin	Case No.: CV025773	Deposition Trial	August 2007 April 2010	Plaintiff
20.	<u>Edward Lee Henderson v. Charles Hicks, Walgreen Company, and Penske Truck Leasing Corporation</u>	Superior Court of the State of California, County of Sacramento	No.: 05AS01834	Deposition	January 2008	Defendant
21.	<u>Ryan Garcia, a minor, by and through his Guardians, Jim Garcia and Tamara Cascarano, et al. v. Scott G. Byrd, a minor; Terri Byrd; Sacramento Municipal Utility District; County of Sacramento; et al.</u>	Superior Court of the State of California, County of Sacramento	No.: 06AS01199	Deposition	March 2008	Plaintiff
22.	<u>Timothy Frieze, Sr. Joann Frieze v. Andrew L. Wyant; County of Sacramento; and Does 1-100, inclusive</u>	Superior Court of the State of California, County of Sacramento	No.: 06AS03251	Deposition Trial	May 2008 June 2008	Plaintiff
23.	<u>Diana Rangel and Daniel Rangel v. Arthur Barajas, Noll Manufacturing Company, and American Medical Response</u>	Superior Court of the State of California, County of San Joaquin	Case No.: CV031967	Deposition	October 2008	Plaintiff
24.	<u>James King v. Samuel Hernandez, Kenyon Construction, Inc., Jeffery Allen Rioux, and Does 1 to 25</u>	Superior Court of the State of California, County of Placer	No. SCV 22389	Deposition	January 2009	Plaintiff
25.	<u>Robert E. Mattos v. Salvador Palafox Garcia, Riverwest Leveling, Inc.</u>	Superior Court of the State of California, County of Fresno	No. 07 CE CG 00433 MWS	Deposition	March 2009	Defendant

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26.	<u>Verdonna Mayes v. Northern Refrigerated Transportation, Inc.; Poppy State Services; Poppy State Express, Inc.; Joe Edward Nunez, et al.</u>	Superior Court of the State of California, County of Stanislaus	Case No. 379337	Deposition	April 2009	Plaintiff
27.	<u>Deborah Ann Gregory v. Atlas Disposal Industries, LLC, Vincent Paul Hrepich and Does 1 to 30,</u>	Superior Court of the State of California, County of Sacramento	Case No. 07AS03225	Deposition	June 2009	Plaintiff
28.	<u>James L. Silva v. The Dutra Group and Dutra Construction Co., Inc.</u>	United States District Court, Northern District of California	Case No.: CV 08 4964	Deposition	September 2009	Plaintiff
29.	<u>Kenneth Blum et al. v. General Electric Company</u>	United States District Court, Western District of Texas, El Paso Division	Case No.: EP-07-CA-99-PRM	Deposition	October 2009	Plaintiff
30.	<u>Frances Torres v. Manuel Lainez and Flex-Van Leasing</u>	Superior Court of the State of California, County of Sacramento	Case No.: Lead Case No. 34-200	Deposition	November 2009	Plaintiff
31.	<u>Ethan Garza, by and through his Guardian ad Litem, Anita Garza v. U.C. Davis Medical Group, U.C. Davis Health System, the Regents of California, and Dennis Michel, M.D.</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2008000012342	Deposition Trial	November 2009 December 2009	Plaintiff
32.	<u>Adam Phillippi v. Stryker Corporation; Stryker Sales Corporation</u>	United States District Court, Eastern District of California--Sacramento Division	Case No.: 2:08-CV-02445-JAM-KJN	Deposition	April 2010	Plaintiff
33.	<u>Donald Hayes Albee v. Continental Tire North America, Inc., and Ford Motor Company, Inc.</u>	United States District Court, Eastern District of California	Case No.: 1:09-CV-00068-LJO (DLBx)	Deposition	May 2010	Plaintiff
34.	<u>Cyntha R. Adge, and Fred S. Adge v. Sutter Memorial Hospital, Sutter Medical Group, Sutter Health Sacramento Sierra Region, Wesley S. Hilger, M.D., Facog, Urogynecology Consultants</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2009-00036566-CU-MM-GD5	Deposition	June 2010	Plaintiff

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35.	<u>Dominic Parento v. Margosian Trucking, Agnes Margosian and the Robert Margosian Family Trust, Agnes Margosian Trucking, and Morris Slivkoff</u>	Superior Court of the State of California, County of Tulare	Case No.: 09-231520	Deposition	August 2010	Plaintiff
36.	<u>In Re: Hawaii State Asbestos Cases; Kenneth Isara and Stella Isara v. CBS Corporation, etc. et al.</u>	In the Circuit Court of the First Circuit, State of Hawaii	No. 10-1-0157-01 (RAN)	Deposition	August 2010	Plaintiff
37.	<u>In Re: Hawaii State Asbestos Cases; Barney Rio and Hisae Rio v. CBS Corporation, etc. et al.</u>	In the Circuit Court of the First Circuit, State of Hawaii	No. 10-1-0174-01 (RAN)	Deposition	August 2010	Plaintiff
38.	<u>In Re: Hawaii State Asbestos Cases; Homer Wadsworth Means and Grace Means v. CBS Corporation, etc. et al.</u>	In the Circuit Court of the First Circuit, State of Hawaii	No. 09-1-2781-11 (RAN)	Deposition	August 2010	Plaintiff
39.	<u>Steve Armstrong, individually and as Heidi Armstrong's Successor Interest, Lance Armstrong and Allison Armstrong, by and through their Guardian ad Litem, Brandon Armstrong v. Dina Canavero, M.D., et al.</u>	Superior Court of the State of California, County of Sacramento	No. 34-2008-00013358	Deposition Trial	September 2010 September 2010	Plaintiff
40.	<u>Lori Wade, individually and as Personal Representative of Paul Alan Wade v. United States of America</u>	United States District Court, Northern District of California--San Francisco Division	No. CV 09-1976 JCS	Deposition Trial	November 2010 March 2012	Plaintiff
41.	<u>Denise Moore v. Eugene Donald Volk, Electric Lightwave, Inc.</u>	Superior Court of the State of California, County of Sacramento	No. 34-2009-00055611	Deposition	February 2011	Plaintiff
42.	<u>Quincy Blue v. Brusco Tug & Barge, Inc.</u>	Superior Court of the State of California, County of Alameda	No. RG 09488804	Deposition Trial	March 2011 March 2011	Plaintiff
43.	<u>Ronald Strobel and Rashaun Strobel v. Yosemite Community College District, Modesto Junior College, Modesto Area Aquatic Club, Brianna Leam, Kurt Olson, Corine Meyer</u>	Superior Court of the State of California, County of Stanislaus	Case No.: 642018	Deposition	March 2011	Plaintiff

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44.	<u>In Re: Hawaii State Asbestos Cases; Ernest Sakamoto v. CBS Corporation, etc. et al.</u>	In the Circuit Court of the First Circuit, State of Hawaii	No. 10-1-0962-05 (RAN)	Deposition	April 2011	Plaintiff
45.	<u>In Re: Hawaii State Asbestos Cases; Peter Pagan, Jr. v. CBS Corporation, etc. et al.</u>	In the Circuit Court of the First Circuit, State of Hawaii	No. 10-1-1058-05 (RAN)	Deposition	April 2011	Plaintiff
46.	<u>Sara Michelle Simmons v. Rapture Marine Expeditions</u>	Superior Court of the State of California, County of Orange	Case No.: 30-2009 00306440	Deposition Trial	April 2011 June 2011	Plaintiff
47.	<u>Thomas Savage and Elisa Savage v. State of California</u>	Superior Court of the State of California, County of Nevada	Case No.: 76110	Deposition Trial	May 2011 June 2011	Plaintiff
48.	<u>Jay Tee Michael Weatherbie v. Travis Clay Connor</u>	Superior Court of the State of California, County of Yolo	Case No.: PM10-1448	Deposition	June 2011	Plaintiff
49.	<u>Adam Macrae, Elizabeth Schroeder v. Barry A. Rice</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2009- 00032775	Deposition Trial	July 2011 December 2011	Plaintiff
50.	<u>Eddie Horner v. Paneltech International, LLC; Central Oregon & Pacific Railroad, Inc.; Gunderson Rail Services, LLC dba Greenbrier Rail Services</u>	United States District Court, Eastern District of California	Case No.: 2:09-CV-01564- FCD-CMK	Deposition Trial	October 2011 September 2012	Plaintiff
51.	<u>Carolyn J. Bohanon v. Hoffman Enclosures, Inc., Petnair, Inc. dba Hoffman Enclosures</u>	Superior Court of the State of California, County of Contra Costa	Case No.: C 08-01725	Deposition	October 2011	Plaintiff
52.	<u>Michael Ingram v. Alex Karavan; AT Systems, Inc.; Gard CL West, Inc.; Garda Cash Logistics; and Garda Security, Inc.</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2010- 00068760	Deposition Trial	November 2011 March 2012	Plaintiff
53.	<u>Heidi Torres v. OC Communications, Inc. and David Peissner</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2010- 00078456	Deposition Trial	December 2011 January 2012	Plaintiff

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54.	<u>Peggy Elliott v. Lisa Parker, et al.</u>	Superior Court of the State of California, County of San Joaquin	Case No.: 39-2010-0024338-CU-PA-STK	Deposition Trial	January 2012 March 2012	Plaintiff
55.	<u>Karen Cain v. William Antonio Lopez; A.V. Trucking Co., Inc.; Walter Tapia Reyes; Cazares Transportation, Inc.; Maersk, Inc.; Maersk Equipment Service Co., Inc.; New Prime, Inc.</u>	Superior Court of the State of California, In and For the County of Solano	Case No.: FCS035983	Deposition	October 2012	Defendant
56.	<u>Amiya Lynn Fulkerson-Collins, by and through her Guardian ad Litem Amanda Fulkerson v. Kaiser Foundation Hospital, Kaiser Foundation Health Plan, Inc., et al.</u>	Judicial Arbitration and Mediation Service (JAMS)		Deposition Arbitration	March 2013 January 2014	Plaintiff
57.	<u>Donald King v. Kate Yu Seo</u>	Superior Court of the State of California, County of San Joaquin	Case No.: 39-2010-00245818-CU-PA-STK	Deposition	April 2013	Plaintiff
58.	<u>Shawn B. Kirkland v. Manson Construction Co./Dutra Dredging Company</u>	Superior Court of the State of California, County of Alameda	Case No.: RG10-535799	Deposition Trial	June 2013 July 2013	Plaintiff
59.	<u>Diane James v. Kiewit Infrastructure West Co.</u>	United States District Court, Eastern District of California	Case No.: 2:12-CV-01651-WBS-DAD	Deposition	August 2013	Plaintiff
60.	<u>David A. Jones v. David Kuk Choi, Enterprise Rent-A-Car (Mahnke v. Choi, et al.)</u>	Superior Court of the State of California, County of Solano	Case No.: FCS038544 c/w 34-2011-00112534	Deposition	October 2013	Plaintiff
61.	<u>Lorraine Price v. Micheal Andrew Trapani, David M. Trapani, Theresa A. Trapani, Heald Real Estate LLC</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2011-00098618	Deposition	October 2013	Plaintiff
62.	<u>Mathew Ziert v. Young's Lockeford Payless Market, et al.</u>	Superior Court of the State of California, County of San Joaquin	Case No.: 39-2010-00241287	Deposition Trial	December 2013 April 2015	Defendant

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63.	<u>Linda Elkins v. Linda Jimenez, Lodi United School District</u>	Superior Court of the State of California, County of San Joaquin	Case No.: 39-2011-00267073-CU-PA-STK	Deposition Trial	December 2013 September 2014	Plaintiff
64.	<u>In re. Marilyn Ann Redding v. AAA Northern California, Nevada & Utah Insurance Exchange (Underinsured Motorist Arbitration)</u>	Superior Court of the State of California, County of Placer	Case No.: Unassigned	Deposition	January 2014	Plaintiff
65.	<u>Erik Brahms v. William McVicker, et al.</u>	Superior Court of the State of California, County of Shasta	Case No.: 175279	Deposition	January 2014	Plaintiff
66.	<u>Laura Elizabeth Brown v. Edward Roger Roberts, Cathy Roberts, and Kathleen Migdal</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2009-00060852 consolidated with 34-2010-00093618	Deposition	January 2014	Defendant
67.	<u>Michele R. Irwin, individually and as Guardian ad Litem for Kaitlynn A. Irwin and Lucas S. Irwin v. City of Sacramento and Kathleen Dawn Samborski</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2011-00102643	Deposition	January 2014	Plaintiff
68.	<u>William Hanson and Katina Prentice v. George Martin and Barbara Ann Morrison</u>	Superior Court of the State of California, County of Butte	Case No.: 156254	Deposition Trial	April 2014 May 2014	Plaintiff
69.	<u>Pamela Mascorro and Jiamie E. Mascorro v. Specialized Distribution, LLC</u>	Superior Court of the State of California, County of Stanislaus	Case No.: 670057	Deposition	May 2014	Plaintiff
70.	<u>Steven Richards v. Peterson Tractor Co., and James Lanphear</u>	Superior Court of the State of California, County of Shasta	Case No.: 17614	Deposition Trial	June 2014 April 2015	Plaintiff
71.	<u>Sonia Garcia v. Alen Lee Harris and Rowar Corporation</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2012-00119297	Deposition	June 2014	Plaintiff

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72.	<u>Rebecca Megan Quigley v. Aptos/La Selva Fire Protection District, et al.</u>	Superior Court of the State of California, County of Plumas	Case No.: CV 10-00225	Deposition	June 2014	Plaintiff
73.	<u>Mohinder Paul Samra v. Mid-Century Insurance Company</u>	Superior Court of the State of California, County of Sacramento	Case No.: UIM Arbitration	Deposition	July 2014	Plaintiff
74.	<u>Melanie Dease v. Terry Lee Lyon, City of Fort Bragg</u>	Superior Court of the State of California, County of Mendocino, Ukiah Branch	Case No.: SCTMCVPM 12-60930	Deposition	August 2014	Plaintiff
75.	<u>Judy Howarth v. Dave Mortensen and Kendra Mortensen</u>	Superior Court of the State of California, County of Placer	Case No.: SCV0033341	Deposition Trial	October 2014 January 2015	Plaintiff
76.	<u>Jessica Henderson-McBean v. Vance Howard Campos, Farmers Grain Elevator Co., Farmers Grain Elevator, Daniel Mezger et al.</u>	Superior Court of the State of California, County of Yolo	Case No.: PM13-1418	Deposition	October 2014	Plaintiff
77.	<u>Caton J. State v. John Skarr and Doug Skarr</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2012-00122969	Deposition Trial	November 2014 December 2014	Plaintiff
78.	<u>Scott Louis Brulc and Nathan Cain Sloan v. Tubit Enterprises, Inc. and Nicholas J. Noah</u>	Superior Court of the State of California, County of Shasta	Case No.: 176338	Deposition Trial	December 2014 November 2015	Plaintiff
79.	<u>Danny S. Affrunti, Candy Affrunti v. Pleasant Valley Farms, Inc.; Mark Andrew Hill</u>	Superior Court of the State of California, County of Alameda	Case No.: RG14-723681	Deposition	February 2015	Plaintiff
80.	<u>Alan Schrier, a minor, by and through his Guardian Ad Litem, Gloria Diaz v. Jezreal Angel Pedroza; Turlock City Tow Service, Inc.</u>	Superior Court of the State of California, County of Stanislaus	Case No.: 2004245	Deposition	March 2015	Plaintiff
81.	<u>Michael Aveni and Anne Hunt v. Vincent Mini</u>	Superior Court of the State of California, County of El Dorado	Case No.: PC 20120594	Deposition Trial	March 2015 April 2015	Plaintiff
82.	<u>Melissa Duane v. Young Construction, Gregory Lee Young, Paul Menard Associates, Paul Menard, et al.</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2013-00141085	Deposition	April 2015	Plaintiff

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83.	<u>Shanna Hutchins v. Jennifer Griffith and Matthew Wilemon</u>	Superior Court of the State of California, County of Nevada	Case No.: CU14-080585	Deposition	May 2015	Plaintiff
84.	<u>Deonte Griggs v. Jesus Nunez Arriola and Kyle Lomore Littlejohn</u>	Superior Court of the State of California, County of Tulare	Case No.: VCU255248	Deposition Trial	July 2015 August 2015	Plaintiff
85.	<u>Michael Packard v. Usbaldo Macias</u>	Superior Court of the State of California, County of Santa Barbara	Case No.: 1466743	Deposition Trial	August 2015 August 2015	Plaintiff
86.	<u>Luis Andrade, an individual, and Luis Andrade, Guardian Ad Litem for Vanessa Andrade, a minor, v. Wiley's Supermarket, Inc.</u>	Superior Court of the State of California, County of Shasta	Case No.: 15-181689	Deposition Trial	August 2015 December 2015	Plaintiff
87.	<u>Alfonso Jimenez Armas v. Marivel Gonzalez</u>	Superior Court of the State of California, County of Fresno	Case No.: 1CEG 01331	Deposition	October 2015	Plaintiff
88.	<u>Trevor Gardner v. San Francisco Lesbian, Gay, Bisexual, Transgender Celebration Committee, Inc.</u>	Superior Court of the State of California, County of San Francisco	Case No.: CGC-14-5389556	Deposition	October 2015	Plaintiff
89.	<u>Paublo Chavarria v. San Jose Construction Co., Inc.; Lombardo Diamond Core Drilling Company, Incorporated; Del Secco Diamond Core & Saw, Inc.; LSI Corporation; ECI Two Ridder, LLC</u>	Superior Court of the State of California, County of Santa Clara	Case No.: 1-13-CV-254944 (Lead); 1-14-CV-261447 (Consolidated)	Deposition	October 2015	Plaintiff
90.	<u>Cathy Engle and Duane Steele v. Phyllis Early; Grant Early Properties, Inc.</u>	Superior Court of the State of California, County of Alameda--Oakland	Case No.: RG13702017	Deposition	October 2015	Plaintiff
91.	<u>Susan M. Ramsey; Eric Ramsey v. St. Agnes Occupational Health Center; St. Agnes Medical Center; et al.</u>	Superior Court of the State of California, County of Fresno	Case No.: 13CECG03131	Deposition	November 2015	Plaintiff

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92.	<u>Donald W. McKenzie v. Ean M. Coyle</u>	Superior Court of the State of California, County of Sonoma	Case No.: SCV-256463	Deposition	December 2015	Plaintiff
93.	<u>Sergio Mendoza v. On Site Safety Services, Inc.</u>	Superior Court of the State of California, County of Sutter	Case No.: CV-CS-13-0592	Deposition	January 2016	Plaintiff
94.	<u>Peggy Dreher v. Mountain Valley Express Co., Inc., and Jeremy Rourick</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2013-00141695	Deposition	January 2016	Plaintiff
95.	<u>Christopher Calvi v. Vito J. Liberati, Silver Bay Seafoods, LLC</u>	Superior Court of the State of California, County of San Francisco	Case No.: CGC 13528424	Deposition	February 2016	Plaintiff
96.	<u>Gabriella Cervantes-Flores, Yesica Cervantes-Flores v. Cody Matthew Fondse, Laurie Fondse</u>	Superior Court of the State of California, County of San Joaquin	Case No.: STK-CV-UAT-2013-006304	Deposition	March 2016	Plaintiff
97.	<u>Kimberly Muniz v. Susan Vanrein and Jerry Van Vanrein</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2012-00130385	Deposition Trial	March 2016 March 2016	Plaintiff
98.	<u>Trevor Gardner v. Tropicana Las Vegas, Inc., et al.</u>	In the Eighth Judicial District Court, For Clark County, Nevada	Case No.: A-14-701330-C	Deposition	April 2016	Plaintiff
99.	<u>Thomas Mac Bonelli v. Clint R. Durkee; Companion Pet Products, Inc.</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2014-00160688	Deposition	April 2016	Plaintiff
100.	<u>Hector Sanchez v. Adams Grain Co.; Adams Group, Inc.</u>	Superior Court of the State of California, County of Yolo	Case No.: P014-446	Deposition	April 2016	Plaintiff
101.	<u>Susan Katherine Arp v. Susan Corrine Davis, City of Rocklin</u>	Superior Court of the State of California, County of Placer	Case No.: SCV0034167	Deposition	May 2016	Plaintiff

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102.	<u>Alexa Simpson v. Sutter Solano Medical Center</u>	Superior Court of the State of California, County of Solano	Case No.: FCS042780	Deposition Trial	June 2016 August 2016	Plaintiff
103.	<u>Joseph C. Wessling v. AT&T Corp.; County of Santa Cruz; Sandra Thomas; Migdalia Camacho</u>	Superior Court of the State of California, County of Santa Cruz	Case No.: CV178079	Deposition Trial	July 2016 November 2017	Plaintiff
104.	<u>Shannon Moore and Kyle Alden Anderson, by and through his Conservator, Matthew S. Anderson and/or Robin S. Anderson v. State of California; County of Humboldt; City of Eureka; Selena Nicole Ranney</u>	Superior Court of the State of California, County of Humboldt	Case No.: DR 120609	Deposition Trial	July 2016 December 2016	Plaintiff
105.	<u>Joshua Lane v. Elver Greenwood and Sears Roebuck</u>	Superior Court of the State of California, County of San Joaquin	Case No.: 39-2013-00296351	Deposition Trial	August 2016 August 2016	Plaintiff
106.	<u>Janet Skeens v. Crown Properties, Mary Lee</u>	Superior Court of the State of California, County of San Mateo	Case No.: CIV 530270	Trial	October 2016	Plaintiff
107.	<u>Dominic Renel Galvin v. Green Earth Development, Inc., Ronald Harada, Gerald Duane Sandoval</u>	Superior Court of the State of California, County of Contra Costa	Case No.: C1300970	Deposition Arbitration	February 2017 March 2017	Plaintiff
108.	<u>Gabriel Flores and Theodore H. Hughes v. Transamerican Auto Parts, Tap Automotive Holdings, LLC, and Bret Kyle Price</u>	Superior Court of the State of California, County of Solano	Case No.: FCS045592	Deposition	February 2017	Plaintiff
109.	<u>Della Flores Garcia, on behalf of herself and as Successor-In-Interest to, and Substitute Successor-In-Interest for, Jose A. Garcia v. City of Lake Elsinore</u>	Superior Court of the State of California, County of Riverside	Case No.: RIC1412125	Deposition	February 2017	Plaintiff
110.	<u>Luanne Morikawa and Jeff Harris v. Whaling Station Inn, Inc., The Whaling Station Inn Restaurant</u>	Superior Court of the State of California, County of Monterey	Case No.: M 132266	Deposition	March 2017	Plaintiff

CHARLES R. MAHLA, Ph.D.
Prior Testimony

Econ One Research, Inc.
Sacramento, California

	Proceeding	Court/Commission/Agency	Docket or File	Deposition/Trial	Date	On Behalf Of
111.	<u>Melinda Avila; Gretel Lorenzo; Alfredo Lorenzo; and Jose Lorenzo v. State of California; County of Madera; Richard Gonzales; Paul Varner</u>	United States District Court, Eastern District of California	Case No.: 1:15-cv-00996JAM-EPG	Deposition Trial	May 2017 May 2018	Plaintiff
112.	<u>Isabella Juliet Madrid v. Adventist Medical Center-Reedley; Adventist Health System/West; et al.</u>	Superior Court of the State of California, County of Fresno	Case No.: 13CECG03829	Deposition	June 2017	Defendant
113.	<u>Anna Dombrowski v. James Andrew Morton, Morton Penrod</u>	Superior Court of the State of California, County of Sacramento	Case No.: CV-PM-14-0001753	Deposition	June 2017	Plaintiff
114.	<u>Nancy Cartia and James Cartia v. Winton Cemetery District, and Gateway Memorial, Inc.</u>	Superior Court of the State of California, County of Merced	Case No.: 16CV-01005	Deposition	July 2017	Plaintiff
115.	<u>Patrick Morse and Patricia Morse v. Hyundai Motors Company; Hyundai Motor America, Dublin Hyundai Corp., and Giovania Nunez</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2015-00179952	Deposition	August 2017	Plaintiff
116.	<u>Israel Arredondo, Rodolfo Arredondo, Martin Arredondo v. Tuco Trucking, Inc., Marvin Jaime Alas</u>	Superior Court of the State of California, County of Orange	Case No.: 30-2015-00813339-CU-PA-CJC	Deposition	August 2017	Plaintiff
117.	<u>Randal W. Rowland v. United Airlines, Inc., Diana Yatco</u>	Superior Court of the State of California, County of San Francisco	Case No.: CGC-16-554871	Deposition	October 2017	Plaintiff
118.	<u>Randall Ellis v. Keith Miller, Karen Miller, and the Miller Family Trust</u>	Superior Court of the State of California, County of Placer	Case No.: SCV0037879	Deposition	October 2017	Plaintiff

CHARLES R. MAHLA, Ph.D.
Prior Testimony

Econ One Research, Inc.
Sacramento, California

	Proceeding	Court/Commission/Agency	Docket or File	Deposition/Trial	Date	On Behalf Of
119.	<u>Larry Cruz v. Amerit Fleet Solutions, Inc., Pacific Bell Telephone Company, and Altec Industries, Inc.</u>	Superior Court of the State of California, County of San Joaquin-- Stockton	Case No.: 39-2014-00313356	Deposition Trial	October 2017 July 2018	Plaintiff
120.	<u>Carol Gaona v. J.C. Penney Company, Inc.; J.C. Penney Corporation, Inc.; Dow Roofing Systems, LLC; et al.</u>	United States District Court, Eastern District of California	Case No.: 2:14-cv-02051-TLN-DAD	Deposition	November 2017	Plaintiff
121.	<u>Margarito Meza and Edelmira Meza v. Pacific Gas & Electric Company, PG&E Corporation</u>	Superior Court of the State of California, County of San Francisco	Case No.: CGC-13-533134	Deposition	November 2017	Plaintiff
122.	<u>Jose Verduco v. Andy Mar, County of San Mateo</u>	Superior Court of the State of California, County of San Mateo	Case No.: CIV537740	Deposition	January 2018	Plaintiff
123.	<u>Jo Ann Duey, Clint Duey, and Sabrina Lumpkin v. State of California, et al.</u>	Superior Court of the State of California, County of Humboldt	Case No.: DR130340	Deposition	January 2018	Plaintiff
124.	<u>Donna Zimmerman v. Rebecca Lee Cole; Curtis L. Cole</u>	Superior Court of the State of California, County of Butte	Case No.: 163362	Deposition Deposition	March 2018 May 2019	Plaintiff
125.	<u>William Lerette v. Alaska Airlines, Inc.</u>	United States District Court, Central District of California	Case No.: CV 17-3782 DSF (AJWx)	Deposition	March 2018	Plaintiff
126.	<u>Dustin L. Brown, Kimberly Brown v. Quattuor Construction, Inc., Michael Robinson</u>	Superior Court of the State of California, County of Sutter	Case No.: CVCS-16-0450	Deposition	April 2018	Defendant
127.	<u>Elham Amarlou v. Saini Bros Trucking, Inc.; Ra Vinderpal Singh; The Don Chapin Co., Inc.; et al.</u>	Superior Court of the State of California, County of Monterey	Case No.: 16CV001136	Deposition	April 2018	Plaintiff
128.	<u>Sonia Ramirez v. City of Fresno, Justin Hoagland</u>	Superior Court of the State of California, County of Fresno	Case No.: 15CFCG03551	Deposition Trial	May 2018 July 2018	Plaintiff

CHARLES R. MAHLA, Ph.D.
Prior Testimony

Econ One Research, Inc.
Sacramento, California

	Proceeding	Court/Commission/Agency	Docket or File	Deposition/Trial	Date	On Behalf Of
129.	<u>Juan Carlos Marin v. Grimme Landmaschinenfabrik GmbH & Co., et al.</u>	Superior Court of the State of California, County of San Joaquin	Case No.: STK-CV-UPI-2016-10265	Deposition Trial	May 2018 May 2018	Defendant
130.	<u>Roger Lenz v. Turner Construction Company, Lescure Company, Inc.</u>	Superior Court of the State of California, County of Santa Clara	Case No.: 115-CV-276588	Deposition	June 2018	Plaintiff
131.	<u>Mark Piland, Andrea Piland v. Markwort Sporting Goods Company, dba Game Face, dba Gameface.com; The Golf Warehouse, Inc., dba Softballsavings.com; Les Industries; Unicor, Inc., dba Unicor Industries, Inc., dba Unicor</u>	United States District Court, Eastern District of California	Case No.: 2:16-CV-01782-WHO	Deposition	July 2018	Plaintiff
132.	<u>Sakiynah Hylton v. Glenn Trotter, General Electric Company</u>	Superior Court of the State of California, County of Butte	Case No.: 17-CV-00200	Deposition	July 2018	Plaintiff
133.	<u>Mary Ma v. Dignity Health, Inc.; Woodland Memorial Hospital; Kathy Jang, M.D.; My-Le To, D.O., et al.</u>	Superior Court of the State of California, County of Yolo	Case No.: CVPO-2016-1465	Deposition	August 2018	Plaintiff
134.	<u>James Harkless and Kimberly Harkless v. Altec, Inc.; Altec Industries, Inc.; Altec Worldwide, L.L.C.; and Sonia Donahue</u>	Superior Court of the State of California, County of Siskiyou	Case No.: SC CV PO 13-01578	Deposition	August 2018	Plaintiff
135.	<u>William B. Trujillo v. McKinley Holding I, L.P.; Diamond Bay Realty and Property Management, Inc.</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2016-00197307	Deposition	September 2018	Plaintiff
136.	<u>Pauline Santos, Ryan Luis Santos, Richard Anthony Santos, et al. v. Pacific Gas and Electric Company; David Frea Dairy, LLC; et al.</u>	Superior Court of the State of California, County of Fresno	Case No.: 15CECG 01642	Deposition	October 2018	Plaintiff
137.	<u>Julian Saavedra v. Jennifer Fishbaugh, Deceased; Helena Chemical Company; Tennille R. Delatorre</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2016-00200595	Deposition	October 2018	Plaintiff
138.	<u>Jacob A. Velazquez, Stephanie Velazquez, et al. v. Shamsher Singh; Judith Lynne Smith; and United Express, Inc.</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2016-00196290-CU-PS-GDS	Deposition	November 2018	Plaintiff

CHARLES R. MAHLA, Ph.D.
Prior Testimony

Econ One Research, Inc.
Sacramento, California

	Proceeding	Court/Commission/Agency	Docket or File	Deposition/Trial	Date	On Behalf Of
139.	<u>Darcy Russak v. Trader Joe's</u>	Superior Court of the State of California, County of Monterey	Case No.: 16CV002573	Deposition	November 2018	Defendant
140.	<u>David W. Lee and Danise D. Lee v. Joshua Patrick and Ruth Patrick</u>	Superior Court of the State of California, County of Shasta	Case No.: SCRDCVPM17-0186694-003	Deposition Trial	December 2018 January 2019	Plaintiff
141.	<u>Kevin K. Callen II v. Hensel Phelps</u>	Superior Court of the State of California, County of San Francisco	Case No.: CGC-16-553043	Deposition Trial	March 2019 May 2019	Plaintiff
142.	<u>Teodora Tapia v. Tesla Motors, Inc., et al.</u>	Superior Court of the State of California, County of Alameda	Case No.: HG16825977	Deposition	April 2019	Plaintiff
143.	<u>Donald Scott Driver v. State of California Department of Transportation, City of Richmond</u>	Superior Court of the State of California, County of Contra Costa	Case No.: CIVMSC17-00129	Deposition	May 2019	Plaintiff
144.	<u>Jennifer Burke and Jon Burke v. Best Western Dry Creek Inn; Krug Development Corporation</u>	Superior Court of the State of California, County of Sonoma	Case No.: SCV-260651	Deposition	May 2019	Plaintiff
145.	<u>Richard Wibbeler and Kathy Wibbeler v. Vacaville Dermatology; Nandan V. Kamath, M.D.</u>	Superior Court of the State of California, County of Solano	Case No.: FCS048266	Deposition Trial	July 2019 August 2019	Plaintiff
146.	<u>Bhupinder Singh and Reena Rani v. Capay, Inc., Individually and DBA Capay Organic</u>	Superior Court of the State of California, County of Yolo	Case No.: P017-2105	Deposition	July 2019	Plaintiff
147.	<u>Cinthia Da Roza v. Denny's Inc., Sagar Family Corporation; National Retail Properties, L.P.</u>	Superior Court of the State of California, County of Santa Clara	Case No.: 18CV321343	Deposition Trial	July 2019 September 2019	Defendant
148.	<u>Elisabeth Geer, Cameron Geer, a minor, and Madeline Geer, a minor, by and through their Guardian ad Litem, Elisabeth Geer v. Kaiser Foundation Hospitals, et al.</u>	Judicial Arbitration and Mediation Service (JAMS)	Case No.: 15409	Deposition Arbitration	August 2019 August 2019	Plaintiff

CHARLES R. MAHLA, Ph.D.
Prior Testimony

Econ One Research, Inc.
Sacramento, California

	Proceeding	Court/Commission/Agency	Docket or File	Deposition/Trial	Date	On Behalf Of
149.	<u>Shawnta Lynell Eugenia James, Genvieve Ryanne Grayson, Gia Bella Grayson v. Jorge Luis Alonso Tello, State of California, County of Stanislaus, City of Turlock</u>	Superior Court of the State of California, County of Stanislaus	Case No.: 9000681	Deposition	August 2019	Defendant
150.	<u>Kenneth Korsmo and Carol Korsmo v. Madalyn Ashby and Julio Lawrence</u>	Superior Court of the State of California, County of Sacramento	Case No.: 34-2014-00170180	Deposition	September 2019	Plaintiff

	Proceedings	Depositions	Trials/Arbitrations
Totals:	382	371	162

Tab 2

Summary of Documents Reviewed		
Charles R. Mahla, Ph.D.		
<u>Filings</u>		
	Amended Complaint for Damages	
<u>Materials Publicly Available</u>		
	Tesla, Inc. Form 10-K, for the Fiscal Year Ended December 31, 2015	
	Tesla, Inc. Form 10-K, for the Fiscal Year Ended December 31, 2018	
	Tesla, Inc. Form 10-Q, for the Quarterly Period ending June 30, 2019	
	Tesla Second Quarter 2019 Update	
	Fortune 500, 2018, https://fortune.com/fortune500/2018/tesla/	
	Fortune 500, 2019, https://fortune.com/fortune500/2019/search/?name=Tesla	
	Google Finance, www.google.com/finance	

EXHIBIT 2

1 UNITED STATES DISTRICT COURT

2 NORTHERN DISTRICT OF CALIFORNIA

3 SAN FRANCISCO DIVISION

4 DEMETRIC DI-AZ, OWEN DIAZ,
5 AND LAMAR PATTERSON,

6 Plaintiffs,

7 vs.

Case No. 3:17-cv-06748-WHO

8 TESLA, INC., DBA TESLA MOTORS,
9 INC.; CITISTAFF SOLUTIONS, INC.;
10 WEST VALLEY STAFFING GROUP;
CHARTWELL STAFFING SERVICES,
11 INC., and DOES 1-50, inclusive,

12 Defendants.

-----/

13
14
15 DEPOSITION OF CHARLES R. MAHLA, Ph.D.

16 San Francisco, California

17 Tuesday, February 25, 2020

18
19
20
21
22 Stenographically reported by:

23 LORRIE L. MARCHANT, CSR No. 10523

RMR, CRR, CCRR, CRC

24
25 Job No. 176146

February 25, 2020

10:08 a.m.

Deposition of CHARLES R. MAHLA, Ph.D., held at
the offices of Sheppard Mullin Richter &
Hampton, LLP, Four Embarcadero Center, 17th
Floor, San Francisco, California, before
Lorrie L. Marchant, a Certified Shorthand
Reporter, Registered Merit Reporter, Certified
Realtime Reporter, California Certified
Realtime Reporter, Certified Realtime
Captioner.

A P P E A R A N C E S

APPEARING ON BEHALF OF THE PLAINTIFFS:

CALIFORNIA CIVIL RIGHTS GROUP

BY: LARRY ORGAN, ESQ.

332 San Anselmo Avenue

San Anselmo, CA 94960

APPEARING ON BEHALF OF THE DEFENDANTS:

SHEPPARD, MULLIN, RICHTER & HAMPTON

BY: SUSAN HAINES, ESQ.

Four Embarcadero Center

San Francisco, CA 94111

---oOo---

1 Q. And so when you make the assessment in your
2 report about the financial condition, you're not
3 qualifying it in any way? You're just providing this
4 picture with the information, the company statistics
5 that you listed?

6 A. That's correct.

7 Q. Does the financial condition of a company have
8 any significance, legal significance, when it comes to
9 punitive damages?

10 MR. ORGAN: Objection. Calls for a legal
11 conclusion.

12 THE WITNESS: Yeah. My layperson's review of
13 how courts have looked at this is that it can be all
14 over the board. There's firms that -- who are losing
15 money or have a negative net worth that have still been
16 required to pay punitive damages.

17 Clearly the overall ability to pay without
18 causing -- without causing undue stress or potential
19 debilitation to a firm is a condition of a punitive
20 award.

21 BY MS. HAINES:

22 Q. Is that also a condition of the ability of a
23 company to pay a punitive damages?

24 A. Sure.

25 Q. How do you determine whether a company can pay

1 A. It is.

2 Q. And also you were deposed in those three cases
3 as well?

4 A. Yeah. Although I wasn't deposed on issues
5 relating to punitive damages.

6 Q. So then have you ever, excluding today, given a
7 deposition on punitive damages?

8 A. I haven't.

9 Q. Okay. Looking at Exhibit 6, you indicated it
10 did not change the opinion you set forth in Exhibit 1;
11 correct?

12 A. That's correct.

13 Q. And you said, I believe, made it stronger?

14 A. Well, if you look particularly at cash and cash
15 equivalents, just since the middle of 2019, Tesla has
16 added 1.3 billion in additional cash to its balance
17 sheet. Also its market cap. Certainly the envy of Wall
18 Street since the filing of my report. It's almost three
19 and a half times higher than it was back in October.

20 Q. And, again, each of those factors is just one
21 of the statistics that you consider in evaluating the
22 financial condition?

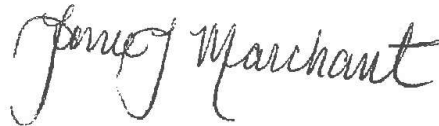
23 A. Sure. It all just indicates that Tesla
24 continues to grow both in assets, in revenues,
25 profitability, and cash flow.

DEPOSITION OFFICER'S CERTIFICATE

I, LORRIE L. MARCHANT, Certified Shorthand Reporter, Certificate No. 10523, for the State of California, hereby certify that CHARLES A. MAHLA, Ph.D. was by me duly sworn/affirmed to testify to the truth, the whole truth and nothing but the truth in the within-entitled cause; that said deposition was taken at the time and place herein named; that the deposition is a true record of the witness's testimony as reported to the best of my ability by me, a duly certified shorthand reporter and a disinterested person, and was thereafter transcribed under my direction into typewriting by computer; that request [] was [X] was not made to read and correct said deposition.

I further certify that I am not interested in the outcome of said action, nor connected with, nor related to any of the parties in said action, nor to their respective counsel.

IN WITNESS WHEREOF, I have hereunto set my hand this 7th day of March, 2020.



LORRIE L. MARCHANT, RMR, CRR, CCRR, CRC
Certified Shorthand Reporter #10523

EXHIBIT 3

Diaz vs Tesla, Inc.
C 17-6748 WHO
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MAHLA - DIRECT / ORGAN

1 work in the employment arena. And I've been doing -- I've been
2 doing this work dating back to 1994.
3 Q. Have you ever testified in court?
4 A. Many times, yes.
5 Q. And have you ever given expert opinion on valuation of
6 companies?
7 A. I have done on a number of occasions assignments similar
8 to the one here.
9 MR. ORGAN: Your Honor, I move that Dr. Mahla be
10 qualified as an expert.
11 THE COURT: Okay. On what topic?
12 MR. ORGAN: On the issue of the economic value of
13 Tesla, Inc.
14 MS. KENNEDY: As of what time period?
15 MR. ORGAN: Financial condition of Tesla, Inc.
16 THE COURT: As of what time period?
17 MR. ORGAN: As of the date of his deposition.
18 Your Honor.
19 THE COURT: Okay. Which was in?
20 MR. ORGAN: 2019, Your Honor.
21 THE WITNESS: February of 2020.
22 MR. ORGAN: Oh, February of 2020, Your Honor.
23 MS. KENNEDY: No objection.
24 THE COURT: Okay. You may proceed.
25 MR. ORGAN: Thank you, Your Honor.

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MAHLA - DIRECT / ORGAN

1 BY MR. ORGAN
2 Q. So what did you do to come up with a value of Tesla, Inc.,
3 as of February 2020?
4 A. Well, the value of Tesla is -- Tesla is a publicly-traded
5 firm. So the value of Tesla is relatively easy to determine.
6 It's simply -- and it's sometimes referred to as the market
7 capitalization.
8 The market cap of Tesla at the time of my deposition is
9 simply determined by taking the publicly-traded shares
10 outstanding and multiplying it by the share price of those
11 shares. And as of the day before my deposition, the estimate
12 of Tesla's market value was \$151.2 billion.
13 Q. \$151.2 billion; is that correct?
14 A. Correct.
15 Q. Okay. And in terms of the financial condition of Tesla,
16 in addition to its market capitalization of \$151.2 billion, did
17 you analyze anything else in terms of the financial condition
18 of Tesla as of February 2020?
19 A. Sure. Well, generally, in looking at a firm like Tesla,
20 you look at things like revenue and revenue growth. You look
21 at its asset base. You can look at the amount of cash and cash
22 equivalents that it has, that it records on its balance sheets.
23 Cash equivalents are essentially investment vehicles that can
24 be converted very quickly into cash. So they're considered
25 cash and cash equivalents. We look at things like that.

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MAHLA - DIRECT / ORGAN

1 We look at the amount of free cash flow. That's a measure
2 of a firm's ability to generate cash. Free cash flow is simply
3 the cash generated from operations minus any capital
4 expenditures that the firm has; investments, longer-term
5 investments. You can look at things like the total amount of
6 cash above and beyond those -- those investments.
7 And, finally, you can look at the firm's ability to
8 generate income, net income; just total revenue minus total
9 costs.
10 Q. I believe during your deposition you had a chart.
11 Exhibit 6 I think it was; is that correct?
12 A. Yes.
13 MR. ORGAN: And, Your Honor, we have that chart for
14 the jury.
15 THE COURT: All right.
16 (Document displayed.)
17 BY MR. ORGAN:
18 Q. Do you recognize this document, Dr. Mahla?
19 A. I do. This is marked as Exhibit 6 to my depo.
20 Q. Okay. So tell us, go through this, if you could, so that
21 we can understand this for those of us who are not math whizzes
22 like yourself. Tell us what this means.
23 A. Sure. Well, there's two columns, one as of June 30th,
24 2019, and those are most of the financials that I used at the
25 time I was writing my initial report back in October. That was

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MAHLA - DIRECT / ORGAN

1 the last set of financials that were produced by Tesla in a
2 public forum to the SEC and also through its own publication of
3 financial information on its website.
4 The second column 12/31/2019, that's the last financial
5 reporting period that I had available prior to my deposition.
6 And so I looked at the change from the time I had done my
7 initial report until the time I was deposed.
8 And we start with total assets. In June of 2019, Tesla
9 recorded \$31.9 billion in assets. They increased a little over
10 7 and a half percent in that interim period, the final six
11 months of 2019, to \$34.3 billion.
12 Total revenues, and here we're looking at calendar years
13 2018 and 2019. It generated \$21.5 billion in revenues in 2018.
14 Revenues were up 14 and a half percent in '19 to 24.6 billion,
15 which is the 24th -- it's listed there as 24,578. That's in
16 thousands -- or that's millions rather. So that's
17 \$24.6 billion.
18 We spoke about the market capitalization. At the time of
19 my report, I had looked at the number of shares outstanding and
20 the closing price of Tesla on the -- on a couple of days before
21 I filed my report on October -- on October. I looked at the
22 price on October 9th. That gave a market capitalization or a
23 market value of 43.8 billion.
24 You can see that the market had re-evaluated Tesla and, in
25 fact, on the day before my deposition the market had more than

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MAHLA - CROSS / KENNEDY

1 tripled its assessment of Tesla value and it listed at
2 \$151.2 billion.

3 Cash and cash equivalents, the next is "C" and "CE."
4 That's the cash that we spoke of. And in June they reported
5 \$5 billion in cash on their books. By the end of the year,
6 that had increased by almost 1.3 billion to 6.268 billion.

7 Tesla reported free cash flow as 614 million in the second
8 quarter of 2019. In the fourth quarter it reported free cash
9 flow of over a billion dollars, and that's just the operating
10 cash flow above expenses less capital expenditures.

11 And finally the net income. At the time I wrote my
12 report, the second quarter earnings were reported as negative
13 408 million. In fact, Tesla had not made -- they maybe had one
14 quarter or two quarters prior to that where they made a
15 positive net income. Generally up through 2019 Tesla was not
16 positive. It was not in the black in terms of net income. The
17 last two quarters of 2019 Tesla reported 143 million in
18 positive profits in the third quarter and 105 million in
19 positive profits in the fourth quarter.

20 MR. ORGAN: Okay. No more questions, Your Honor.
21 THE COURT: All right. Ms. Kennedy.
22 MS. KENNEDY: Yes, Your Honor. A few questions.
23 CROSS-EXAMINATION
24 BY MS. KENNEDY
25 Q. Good afternoon, Mr. Mahla.

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MAHLA - CROSS / KENNEDY

1 A. Good afternoon.
2 Q. I understand you've been retained to render an opinion
3 regarding the financial condition of Tesla; correct?
4 A. Yes.
5 Q. And basically the financial condition is basically the
6 financial stats of the organization; right?
7 A. Correct.
8 Q. You take a look at the asset base and the cash generation
9 profitability; correct?
10 A. Yes.
11 Q. When you look at asset base, that includes every nut and
12 bolt, so to speak, that Tesla owns, everything from desks to
13 chairs to laptops to all of that; correct?
14 A. Sure.
15 Q. And as I understand what you did, you basically just
16 looked at the publicly-traded financial -- publicly available
17 information regarding financial stats; correct?
18 A. Yes. It's a publicly-traded firm, that's right.
19 Q. And then just recited what those stats were; correct?
20 A. That's right.
21 Q. And when you talk about net revenue, that does -- strike
22 that.
23 When we talk about revenue, that doesn't include expenses;
24 correct?
25 A. No. That's purely revenue.

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MAHLA - CROSS / KENNEDY

1 Q. And when you're looking at the financial condition of an
2 organization, you need to look at more than just one or two
3 financial statements; correct?
4 A. Sure.
5 Q. And you would agree Tesla would be described, in using
6 your words, as "a relatively young, fast-growth company that
7 could face risk to its business"? Do you agree with that?
8 A. Sure. That was in my report.
9 Q. Right. And some of those risks could result in financial
10 distress to Tesla. You agree with that; right?
11 A. At the time I wrote that, that was certainly a risk, yes.
12 Q. And that's despite the very large asset base that Tesla
13 has; right?
14 A. Sure. And its -- and its large market capitalization,
15 that's true.
16 Q. So other than simply looking at the financial -- the
17 publicly available financial statements, you didn't do anything
18 else to determine any type of financial condition of the
19 organization; correct?
20 A. Well, the only information that was available to me was
21 publicly available information, and this is information that
22 Tesla files with the Securities and Exchange Commission. So
23 this is -- these are -- these figures are filed under penalty
24 of perjury, so I assume they are correct.
25 Q. Correct. But my question is: So you looked at these

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PROCEEDINGS

1 filings with the SEC and basically you recited what is on those
2 SEC filings as part of your opinion; correct?
3 A. Correct.
4 MS. KENNEDY: Your Honor, I have no -- strike that.
5 Did you use -- strike that.
6 Thank you. I'm done. Thank you, Your Honor.
7 THE COURT: Okay.
8 Mr. Organ, anything further?
9 MR. ORGAN: No more questions, Your Honor.
10 THE COURT: All right. Thank you, Mr. Mahla. You're
11 excuse.
12 THE WITNESS: Thank you.
13 (Witness excused.)
14 THE COURT: And who is next?
15 MR. ORGAN: Your Honor, we would move to put in
16 Exhibit 6, the Anti-Handbook Handbook.
17 THE COURT: All right. Is there --
18 MR. ORGAN: There's an agreement.
19 MS. KENNEDY: Yes, we stipulated to Exhibit 6.
20 THE COURT: All right. So Exhibit 6 is admitted.
21 (Trial Exhibit 6 received in evidence)
22 MR. ORGAN: And then Exhibit 3, Your Honor, is now
23 agreed upon in its edited form.
24 MS. KENNEDY: Exhibit 3 in the redacted form per the
25 agreement, as well as Exhibit 379, the Demetric Di-az

EXHIBIT 4

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended March 31, 2021

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File Number: 001-34756

Tesla, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

3500 Deer Creek Road
Palo Alto, California
(Address of principal executive offices)

91-2197729
(I.R.S. Employer
Identification No.)

94304
(Zip Code)

(650) 681-5000

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock	TSLA	The Nasdaq Global Select Market

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 ("Exchange Act") during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of April 21, 2021, there were 963,330,448 shares of the registrant's common stock outstanding.

TESLA, INC.

FORM 10-Q FOR THE QUARTER ENDED MARCH 31, 2021

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Forward-Looking Statements

The discussions in this Quarterly Report on Form 10-Q contain forward-looking statements reflecting our current expectations that involve risks and uncertainties. These forward-looking statements include, but are not limited to, statements concerning any potential future impact of the coronavirus disease ("COVID-19") pandemic on our business, our strategy, future operations, future financial position, future revenues, projected costs, profitability, expected cost reductions, capital adequacy, expectations regarding demand and acceptance for our technologies, growth opportunities and trends in the market in which we operate, prospects and plans and objectives of management. The words "anticipates," "believes," "could," "estimates," "expects," "intends," "may," "plans," "projects," "will," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements that we make. These forward-looking statements involve risks and uncertainties that could cause our actual results to differ materially from those in the forward-looking statements, including, without limitation, the risks set forth in Part II, Item 1A, "Risk Factors" in this Quarterly Report on Form 10-Q and in our other filings with the Securities and Exchange Commission (the "SEC"). We do not assume any obligation to update any forward-looking statements.

PART I. FINANCIAL INFORMATION
ITEM 1. FINANCIAL STATEMENTS

Tesla, Inc.
Consolidated Balance Sheets
(in millions, except per share data)
(unaudited)

	March 31,	December 31,
	2021	2020
Assets		
Current assets		
Cash and cash equivalents	\$ 17,141	\$ 19,384
Accounts receivable, net	1,890	1,886
Inventory	4,132	4,101
Prepaid expenses and other current assets	1,542	1,346
Total current assets	24,705	26,717
Operating lease vehicles, net	3,396	3,091
Solar energy systems, net	5,933	5,979
Property, plant and equipment, net	13,868	12,747
Operating lease right-of-use assets	1,647	1,558
Digital assets, net	1,331	—
Intangible assets, net	299	313
Goodwill	206	207
Other non-current assets	1,587	1,536
Total assets	\$ 52,972	\$ 52,148
Liabilities		
Current liabilities		
Accounts payable	\$ 6,648	\$ 6,051
Accrued liabilities and other	4,073	3,855
Deferred revenue	1,592	1,458
Customer deposits	745	752
Current portion of debt and finance leases	1,819	2,132
Total current liabilities	14,877	14,248
Debt and finance leases, net of current portion	9,053	9,556
Deferred revenue, net of current portion	1,294	1,284
Other long-term liabilities	3,283	3,330
Total liabilities	28,507	28,418
Commitments and contingencies (Note 12)		
Redeemable noncontrolling interests in subsidiaries	601	604
Convertible senior notes (Note 10)	—	51
Equity		
Stockholders' equity		
Preferred stock; \$0.001 par value; 100 shares authorized; no shares issued and outstanding	—	—
Common stock; \$0.001 par value; 2,000 shares authorized; 963 and 960 shares issued and outstanding as of March 31, 2021 and December 31, 2020, respectively	1	1
Additional paid-in capital	27,623	27,260
Accumulated other comprehensive income	143	363
Accumulated deficit	(4,750)	(5,399)
Total stockholders' equity	23,017	22,225
Noncontrolling interests in subsidiaries	847	850
Total liabilities and equity	\$ 52,972	\$ 52,148

The accompanying notes are an integral part of these consolidated financial statements.

Tesla, Inc.

Consolidated Statements of Operations
(in millions, except per share data)
(unaudited)

	Three Months Ended March 31,	
	2021	2020
Revenues		
Automotive sales	\$ 8,705	\$ 4,893
Automotive leasing	297	239
Total automotive revenues	9,002	5,132
Energy generation and storage	494	293
Services and other	893	560
Total revenues	10,389	5,985
Cost of revenues		
Automotive sales	6,457	3,699
Automotive leasing	160	122
Total automotive cost of revenues	6,617	3,821
Energy generation and storage	595	282
Services and other	962	648
Total cost of revenues	8,174	4,751
Gross profit	2,215	1,234
Operating expenses		
Research and development	666	324
Selling, general and administrative	1,056	627
Restructuring and other	(101)	—
Total operating expenses	1,621	951
Income from operations	594	283
Interest income	10	10
Interest expense	(99)	(169)
Other income (expense), net	28	(54)
Income before income taxes	533	70
Provision for income taxes	69	2
Net income	464	68
Net income attributable to noncontrolling interests and redeemable noncontrolling interests in subsidiaries	26	52
Net income attributable to common stockholders	<u>\$ 438</u>	<u>\$ 16</u>
Net income per share of common stock attributable to common stockholders (1)		
Basic	<u>\$ 0.46</u>	<u>\$ 0.02</u>
Diluted	<u>\$ 0.39</u>	<u>\$ 0.02</u>
Weighted average shares used in computing net income per share of common stock (1)		
Basic	<u>961</u>	<u>915</u>
Diluted	<u>1,133</u>	<u>994</u>

(1) Prior period results have been adjusted to reflect the five-for-one stock split effected in the form of a stock dividend in August 2020.

The accompanying notes are an integral part of these consolidated financial statements.

Tesla, Inc.
Consolidated Statements of Comprehensive Income (Loss)
(in millions)
(unaudited)

	Three Months Ended March 31,	
	2021	2020
Net income	\$ 464	\$ 68
Other comprehensive income (loss):		
Foreign currency translation adjustment	(220)	(77)
Comprehensive income (loss)	244	(9)
Less: Comprehensive income attributable to noncontrolling interests and redeemable noncontrolling interests in subsidiaries	26	52
Comprehensive income (loss) attributable to common stockholders	<u>\$ 218</u>	<u>\$ (61)</u>

The accompanying notes are an integral part of these consolidated financial statements.

Tesla, Inc.

Consolidated Statements of Redeemable Noncontrolling Interests and Equity
(in millions, except per share data)
(unaudited)

	Redeemable Noncontrolling Interests	Common Stock		Additional Paid-In Capital (1)	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity	Noncontrolling Interests in Subsidiaries	Total Equity
		Shares (1)	Amount (1)	Capital (1)	Deficit	Loss	Equity	Subsidiaries	Equity
Balance as of December 31, 2019	\$ 643	905	\$ 1	\$ 12,736	\$ (6,083)	\$ (36)	\$ 6,618	\$ 849	\$ 7,467
Adjustments for prior periods from adopting ASU 2016-13	—	—	—	—	(37)	—	(37)	—	(37)
Reclassification between equity and mezzanine equity for convertible senior notes	—	—	—	(60)	—	—	(60)	—	(60)
Issuance of common stock for equity incentive awards	—	7	0	160	—	—	160	—	160
Issuance of common stock in Feb 2020 public offering, net of issuance costs of \$28	—	15	0	2,309	—	—	2,309	—	2,309
Stock-based compensation	—	—	—	244	—	—	244	—	244
Contributions from noncontrolling interests	2	—	—	—	—	—	—	17	17
Distributions to noncontrolling interests	(14)	—	—	—	—	—	—	(50)	(50)
Net income	1	—	—	—	16	—	16	51	67
Other comprehensive loss	—	—	—	—	—	(77)	(77)	—	(77)
Balance as of March 31, 2020	<u>\$ 632</u>	<u>927</u>	<u>\$ 1</u>	<u>\$ 15,389</u>	<u>\$ (6,104)</u>	<u>\$ (113)</u>	<u>\$ 9,173</u>	<u>\$ 867</u>	<u>\$ 10,040</u>

	Redeemable Noncontrolling Interests	Common Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive (Loss) Income	Total Stockholders' Equity	Noncontrolling Interests in Subsidiaries	Total Equity
		Shares	Amount	Capital	Deficit	(Loss) Income	Equity	Subsidiaries	Equity
Balance as of December 31, 2020	\$ 604	960	\$ 1	\$ 27,260	\$ (5,399)	\$ 363	\$ 22,225	\$ 850	\$ 23,075
Adjustments for prior periods from adopting ASU 2020-06	—	—	—	(474)	211	—	(263)	—	(263)
Exercises of conversion feature of convertible senior notes	—	0	0	11	—	—	11	—	11
Issuance of common stock for equity incentive awards	—	3	0	183	—	—	183	—	183
Stock-based compensation	—	—	—	643	—	—	643	—	643
Distributions to noncontrolling interests	(12)	—	—	—	—	—	—	(20)	(20)
Net income	9	—	—	—	438	—	438	17	455
Other comprehensive loss	—	—	—	—	—	(220)	(220)	—	(220)
Balance as of March 31, 2021	<u>\$ 601</u>	<u>963</u>	<u>\$ 1</u>	<u>\$ 27,623</u>	<u>\$ (4,750)</u>	<u>\$ 143</u>	<u>\$ 23,017</u>	<u>\$ 847</u>	<u>\$ 23,864</u>

(1) Prior period results have been adjusted to reflect the five-for-one stock split effected in the form of a stock dividend in August 2020.

The accompanying notes are an integral part of these consolidated financial statements.

Tesla, Inc.
Consolidated Statements of Cash Flows
(in millions)
(unaudited)

	Three Months Ended March 31,	
	2021	2020
Cash Flows from Operating Activities		
Net income	\$ 464	\$ 68
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Depreciation, amortization and impairment	621	553
Stock-based compensation	614	211
Inventory and purchase commitments write-downs	49	45
Foreign currency transaction net (gain) loss	(2)	19
Non-cash interest and other operating activities	8	111
Digital assets gain, net	(101)	—
Changes in operating assets and liabilities:		
Accounts receivable	(24)	(14)
Inventory	(106)	(981)
Operating lease vehicles	(426)	(197)
Prepaid expenses and other current assets	(143)	(154)
Other non-current assets	(168)	40
Accounts payable and accrued liabilities	672	(265)
Deferred revenue	162	53
Customer deposits	(2)	88
Other long-term liabilities	23	(17)
Net cash provided by (used in) operating activities	<u>1,641</u>	<u>(440)</u>
Cash Flows from Investing Activities		
Purchases of property and equipment excluding finance leases, net of sales	(1,348)	(455)
Purchases of solar energy systems, net of sales	(12)	(26)
Purchases of digital assets	(1,500)	—
Proceeds from sales of digital assets	272	—
Receipt of government grants	6	1
Net cash used in investing activities	<u>(2,582)</u>	<u>(480)</u>
Cash Flows from Financing Activities		
Proceeds from issuances of common stock in public offerings, net of issuance costs	—	2,309
Proceeds from issuances of convertible and other debt	2,983	2,802
Repayments of convertible and other debt	(4,038)	(2,318)
Collateralized lease repayments	(6)	(97)
Proceeds from exercises of stock options and other stock issuances	183	160
Principal payments on finance leases	(101)	(100)
Debt issuance costs	(5)	—
Proceeds from investments by noncontrolling interests in subsidiaries	—	19
Distributions paid to noncontrolling interests in subsidiaries	(32)	(67)
Net cash (used in) provided by financing activities	<u>(1,016)</u>	<u>2,708</u>
Effect of exchange rate changes on cash and cash equivalents and restricted cash	<u>(221)</u>	<u>(24)</u>
Net (decrease) increase in cash and cash equivalents and restricted cash	<u>(2,178)</u>	<u>1,764</u>
Cash and cash equivalents and restricted cash, beginning of period	<u>19,901</u>	<u>6,783</u>
Cash and cash equivalents and restricted cash, end of period	<u>\$ 17,723</u>	<u>\$ 8,547</u>
Supplemental Non-Cash Investing and Financing Activities		
Acquisitions of property and equipment included in liabilities	\$ 1,061	\$ 415
Leased assets obtained in exchange for finance lease liabilities	\$ 64	\$ 32
Leased assets obtained in exchange for operating lease liabilities	\$ 179	\$ 60

The accompanying notes are an integral part of these consolidated financial statements.

Tesla, Inc.
Notes to Consolidated Financial Statements
(unaudited)

Note 1 – Overview

Tesla, Inc. (“Tesla”, the “Company”, “we”, “us” or “our”) was incorporated in the State of Delaware on July 1, 2003. We design, develop, manufacture and sell high-performance fully electric vehicles and design, manufacture, install and sell solar energy generation and energy storage products. Our Chief Executive Officer, as the chief operating decision maker (“CODM”), organizes our company, manages resource allocations and measures performance among two operating and reportable segments: (i) automotive and (ii) energy generation and storage.

Beginning in the first quarter of 2021, there has been a trend in many parts of the world of increasing availability and administration of vaccines against COVID-19, as well as an easing of restrictions on social, business, travel and government activities and functions. On the other hand, infection rates and regulations continue to fluctuate in various regions and there are ongoing global impacts resulting from the pandemic, including challenges and increases in costs for logistics and supply chains, such as increased port congestion, intermittent supplier delays and a shortfall of microchip supply. We have also previously been affected by temporary manufacturing closures, employment and compensation adjustments, and impediments to administrative activities supporting our product deliveries and deployments.

Note 2 – Summary of Significant Accounting Policies

Unaudited Interim Financial Statements

The consolidated balance sheet as of March 31, 2021, the consolidated statements of operations, the consolidated statements of comprehensive income, the consolidated statements of redeemable noncontrolling interests and equity, and the consolidated statements of cash flows for the three months ended March 31, 2021 and 2020, as well as other information disclosed in the accompanying notes, are unaudited. The consolidated balance sheet as of December 31, 2020 was derived from the audited consolidated financial statements as of that date. The interim consolidated financial statements and the accompanying notes should be read in conjunction with the annual consolidated financial statements and the accompanying notes contained in our Annual Report on Form 10-K for the year ended December 31, 2020.

The interim consolidated financial statements and the accompanying notes have been prepared on the same basis as the annual consolidated financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary for a fair statement of the results of operations for the periods presented. The consolidated results of operations for any interim period are not necessarily indicative of the results to be expected for the full year or for any other future years or interim periods.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (“GAAP”) requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, costs and expenses and related disclosures in the accompanying notes.

Due to the COVID-19 pandemic, there has been uncertainty and disruption in the global economy and financial markets which could impact our estimates and assumptions. We have assessed the impact and are not aware of any specific events or circumstances that required an update to our estimates and assumptions or materially affected the carrying value of our assets or liabilities as of the date of issuance of this Quarterly Report on Form 10-Q. These estimates may change as new events occur and additional information is obtained. Actual results could differ materially from these estimates under different assumptions or conditions.

*Revenue Recognition**Revenue by source*

The following table disaggregates our revenue by major source (in millions):

	Three Months Ended March 31,	
	2021	2020
Automotive sales without resale value guarantee	\$ 8,013	\$ 4,367
Automotive sales with resale value guarantee	174	172
Automotive regulatory credits	518	354
Energy generation and storage sales	383	173
Services and other	893	560
Total revenues from sales and services	9,981	5,626
Automotive leasing	297	239
Energy generation and storage leasing	111	120
Total revenues	\$ 10,389	\$ 5,985

*Automotive Segment*Automotive Sales RevenueAutomotive Sales with and without Resale Value Guarantee

We recognize revenue when control transfers upon delivery to customers in accordance with ASC 606 as a sale with a right of return when we do not believe the customer has a significant economic incentive to exercise the resale value guarantee provided to them at contract inception. The total sales return reserve on vehicles previously sold under our buyback options program was \$629 million and \$703 million as of March 31, 2021 and December 31, 2020, respectively, of which \$206 million and \$202 million was short term, respectively.

Deferred revenue activity related to the access to our Supercharger network, internet connectivity, Full Self Driving (“FSD”) features and over-the-air software updates on automotive sales with and without resale value guarantee amounted to \$2.00 billion and \$1.93 billion as of March 31, 2021 and December 31, 2020, respectively.

Deferred revenue is equivalent to the total transaction price allocated to the performance obligations that are unsatisfied, or partially unsatisfied, as of the balance sheet date. Revenue recognized from the deferred revenue balance as of December 31, 2020 and 2019 was \$79 million and \$57 million for the three months ended March 31, 2021 and 2020, respectively. Of the total deferred revenue on automotive sales with and without resale value guarantees as of March 31, 2021, we expect to recognize \$1.21 billion of revenue in the next 12 months. The remaining balance will be recognized over the performance period which is generally the expected ownership life of the vehicle or the eight-year life of the vehicle.

Automotive Regulatory Credits

We earn tradable credits in the operation of our automotive business under various regulations related to zero-emission vehicles, greenhouse gas, fuel economy and clean fuel. We sell these credits to other regulated entities who can use the credits to comply with emission standards and other regulatory requirements.

Payments for automotive regulatory credits are typically received at the point control transfers to the customer, or in accordance with payment terms customary to the business. We recognize revenue on the sale of automotive regulatory credits at the time control of the regulatory credits is transferred to the purchasing party as automotive sales revenue in the consolidated statements of operations. Deferred revenue related to sales of automotive regulatory credits was \$61 million and \$21 million as of March 31, 2021 and December 31, 2020, respectively. We expect to recognize the majority of the deferred revenue as of March 31, 2021 in the next 12 months. Revenue recognized from the deferred revenue balance as of December 31, 2020 and 2019 was immaterial for the three months ended March 31, 2021 and 2020, respectively.

Automotive Leasing RevenueDirect Sales-Type Leasing Program

For the three months ended March 31, 2021, we recognized \$42 million of sales-type leasing revenue and \$26 million of sales-type leasing cost of revenue. There was no sales-type leasing revenue or associated cost of revenue recognized in the three months ended March 31, 2020 as we had not launched this offering.

Net investment in sales-type leases, which is the sum of the present value of the future contractual lease payments, is presented on the consolidated balance sheet as a component of Prepaid expenses and other current assets for the current portion and as Other assets for the long-term portion. Lease receivables relating to sales-type leases are presented on the consolidated balance sheet as follows (in millions):

	March 31, 2021	December 31, 2020
Gross lease receivables	\$ 134	\$ 102
Unearned interest income	(14)	(11)
Net investment in sales-type leases	<u>\$ 120</u>	<u>\$ 91</u>
Reported as:		
Prepaid expenses and other current assets	\$ 23	\$ 17
Other assets	97	74
Net investment in sales-type leases	<u>\$ 120</u>	<u>\$ 91</u>

Energy Generation and Storage SegmentEnergy Generation and Storage Sales

We record as deferred revenue any non-refundable amounts that are collected from customers related to fees charged for prepayments and remote monitoring service and operations and maintenance service, which is recognized as revenue ratably over the respective customer contract term. As of March 31, 2021 and December 31, 2020, deferred revenue related to such customer payments amounted to \$195 million and \$187 million, respectively. Revenue recognized from the deferred revenue balance as of December 31, 2020 and 2019 was \$33 million and \$21 million for the three months ended March 31, 2021 and 2020 respectively. As of March 31, 2021, total transaction price allocated to performance obligations that were unsatisfied or partially unsatisfied for contracts with an original expected length of more than one year was \$107 million. Of this amount, we expect to recognize \$6 million in the next 12 months and the remaining over a period up to 27 years.

Income Taxes

There are transactions that occur during the ordinary course of business for which the ultimate tax determination is uncertain. As of March 31, 2021 and December 31, 2020, the aggregate balances of our gross unrecognized tax benefits were \$387 million and \$380 million, respectively, of which \$356 million and \$353 million, respectively, would not give rise to changes in our effective tax rate since these tax benefits would increase a deferred tax asset that is currently fully offset by a valuation allowance.

The local government of Shanghai granted a beneficial corporate income tax rate of 15% to certain eligible enterprises, compared to the 25% statutory corporate income tax rate in China. Our Gigafactory Shanghai subsidiary was granted this beneficial income tax rate of 15% for 2019 through 2023.

We file income tax returns in the U.S., California and various state and foreign jurisdictions. We are currently under examination by the IRS for the years 2015 to 2018. Additional tax years within the period 2004 to 2014 and 2019 remain subject to examination for federal income tax purposes, and tax years 2004 to 2019 remain subject to examination for California income tax purposes. All net operating losses and tax credits generated to date are subject to adjustment for U.S. federal and California income tax purposes. Tax years 2008 to 2020 remain subject to examination in other U.S. state and foreign jurisdictions.

The potential outcome of the current examination could result in a change to unrecognized tax benefits within the next twelve months. However, we cannot reasonably estimate possible adjustments at this time.

Net Income per Share of Common Stock Attributable to Common Stockholders

Basic net income per share of common stock attributable to common stockholders is calculated by dividing net income attributable to common stockholders by the weighted-average shares of common stock outstanding for the period. Potentially dilutive shares, which are based on the weighted-average shares of common stock underlying outstanding stock-based awards, warrants and convertible senior notes using the treasury stock method or the if-converted method, as applicable, are included when calculating diluted net income per share of common stock attributable to common stockholders when their effect is dilutive.

On January 1, 2021, we adopted ASU 2020-06 using the modified retrospective method. Following this adoption, we utilize the if-converted method for diluted net income per share calculation of our convertible debt instruments (see *Recent Accounting Pronouncements* section below for further details). During the three months ended March 31, 2021, we increased net income attributable to common stockholders by \$5 million to arrive at the numerator used to calculate diluted net income per share, which represents the interest expense recognized on the convertible debt instruments that were subject to this change in methodology.

Prior to the adoption, we applied the treasury stock method when calculating the potential dilutive effect, if any, of the following convertible senior notes which we intended to settle or have settled in cash the principal outstanding: our 1.25% Convertible Senior Notes due in 2021 ("2021 Notes"), 2.375% Convertible Senior Notes due in 2022 ("2022 Notes"), 2.00% Convertible Senior Notes due in 2024 ("2024 Notes") and our subsidiary's 5.50% Convertible Senior Notes due in 2022. Furthermore, in connection with the offerings of our convertible senior notes, we entered into convertible note hedges and warrants (see Note 10, *Debt*). However, our convertible note hedges are not included when calculating potentially dilutive shares since their effect is always anti-dilutive. Warrants which have a strike price above our average share price during the period were out of the money and were not included in the tables below. Warrants will be included in the weighted-average shares used in computing basic net income per share of common stock in the period(s) they are settled.

The following table presents the reconciliation of basic to diluted weighted average shares used in computing net income per share of common stock attributable to common stockholders, as adjusted to give effect to the five-for-one stock split effected in the form of a stock dividend in August 2020 (the "Stock Split") (in millions):

	Three Months Ended March 31,	
	2021	2020
Weighted average shares used in computing net income per share of common stock, basic	961	915
Add:		
Stock-based awards	97	46
Convertible senior notes (1)	21	30
Warrants	54	3
Weighted average shares used in computing net income per share of common stock, diluted	1,133	994

The following table presents the potentially dilutive shares that were excluded from the computation of diluted net income per share of common stock attributable to common stockholders, because their effect was anti-dilutive, as adjusted to give effect to the Stock Split (in millions):

	Three Months Ended March 31,	
	2021	2020
Stock-based awards	0	0
Convertible senior notes (1)	1	2

- (1) Under the modified retrospective method of adoption of ASU 2020-06, the dilutive impact of convertible senior notes was calculated using the if-converted method for the three months ended March 31, 2021. Certain convertible senior notes were calculated using the treasury stock method for the three months ended March 31, 2020. Refer to discussion above for further details.

Restricted Cash

We maintain certain cash balances restricted as to withdrawal or use. Our restricted cash is comprised primarily of cash as collateral for our sales to lease partners with a resale value guarantee, letters of credit, real estate leases, insurance policies, credit card borrowing facilities and certain operating leases. In addition, restricted cash includes cash received from certain fund investors that have not been released for use by us and cash held to service certain payments under various secured debt facilities. We record restricted cash as other assets in the consolidated balance sheets and determine current or non-current classification based on the expected duration of the restriction.

Our total cash and cash equivalents and restricted cash, as presented in the consolidated statements of cash flows, was as follows (in millions):

	March 31, 2021	December 31, 2020	March 31, 2020	December 31, 2019
Cash and cash equivalents	\$ 17,141	\$ 19,384	\$ 8,080	\$ 6,268
Restricted cash included in prepaid expenses and other current assets	305	238	193	246
Restricted cash included in other non-current assets	277	279	274	269
Total as presented in the consolidated statements of cash flows	<u>\$ 17,723</u>	<u>\$ 19,901</u>	<u>\$ 8,547</u>	<u>\$ 6,783</u>

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable primarily include amounts related to receivables from financial institutions and leasing companies offering various financing products to our customers, sales of energy generation and storage products, sales of regulatory credits to other automotive manufacturers, government rebates already passed through to customers and maintenance services on vehicles owned by leasing companies. We provide an allowance against accounts receivable for the amount we expect to be uncollectible. We write-off accounts receivable against the allowance when they are deemed uncollectible.

Depending on the day of the week on which the end of a fiscal quarter falls, our accounts receivable balance may fluctuate as we are waiting for certain customer payments to clear through our banking institutions and receipts of payments from our financing partners, which can take up to approximately two weeks based on the contractual payment terms with such partners. Our accounts receivable balances associated with our sales of regulatory credits, which are typically transferred to other manufacturers during the last few days of the quarter, is dependent on contractual payment terms. Additionally, government rebates can take up to a year or more to be collected depending on the customary processing timelines of the specific jurisdictions issuing them. These various factors may have a significant impact on our accounts receivable balance from period to period.

MyPower Customer Notes Receivable

As of March 31, 2021 and December 31, 2020, the total outstanding balance of MyPower customer notes receivable, net of allowance for credit losses, was \$324 million and \$334 million, respectively, of which \$10 million and \$9 million were due in the next 12 months as of March 31, 2021 and December 31, 2020, respectively. As of March 31, 2021 and December 31, 2020, the allowance for credit losses was \$45 million. In addition, there were no material non-accrual or past due customer notes receivable as of March 31, 2021 and December 31, 2020.

*Concentration of Risk**Credit Risk*

Financial instruments that potentially subject us to a concentration of credit risk consist of cash, cash equivalents, restricted cash, accounts receivable, convertible note hedges, and interest rate swaps. Our cash balances are primarily invested in money market funds or on deposit at high credit quality financial institutions in the U.S. These deposits are typically in excess of insured limits. As of March 31, 2021 and December 31, 2020, no entity represented 10% or more of our total accounts receivable balance. The risk of concentration for our convertible note hedges and interest rate swaps is mitigated by transacting with several highly-rated multinational banks.

Supply Risk

We are dependent on our suppliers, including single source suppliers, and the inability of these suppliers to deliver necessary components of our products in a timely manner at prices, quality levels and volumes acceptable to us, or our inability to efficiently manage these components from these suppliers, could have a material adverse effect on our business, prospects, financial condition and operating results.

Operating Lease Vehicles

The gross cost of operating lease vehicles as of March 31, 2021 and December 31, 2020 was \$3.89 billion and \$3.54 billion, respectively. Operating lease vehicles on the consolidated balance sheets are presented net of accumulated depreciation of \$498 million and \$446 million as of March 31, 2021 and December 31, 2020, respectively.

Digital Assets, Net

During the three months ended March 31, 2021, we purchased an aggregate of \$1.50 billion in digital assets, comprised solely of bitcoin. In addition, during the three months ended March 31, 2021, we began accepting bitcoin as a payment for sales of certain of our products in specified regions, subject to applicable laws. We account for such non-cash consideration at the time we enter into transactions with our customers in accordance with the non-cash consideration guidance included in the Accounting Standards Codification ("ASC") 606, *Revenue from Contracts with Customers*, based on the then current quoted market prices of bitcoin.

We currently account for all digital assets held as a result of these transactions as indefinite-lived intangible assets in accordance with ASC 350, *Intangibles—Goodwill and Other*. We have ownership of and control over our bitcoin and we may use third-party custodial services to secure it. The digital assets are initially recorded at cost and are subsequently remeasured on the consolidated balance sheet at cost, net of any impairment losses incurred since acquisition.

We determine the fair value of our bitcoin on a nonrecurring basis in accordance with ASC 820, *Fair Value Measurement*, based on quoted prices on the active exchange(s) that we have determined is its principal market for bitcoin (Level 1 inputs). We perform an analysis each quarter to identify whether events or changes in circumstances, principally decreases in the quoted prices on active exchanges, indicate that it is more likely than not that our digital assets are impaired. In determining if an impairment has occurred, we consider the lowest market price of one bitcoin quoted on the active exchange since acquiring the bitcoin. If the then current carrying value of a digital asset exceeds the fair value so determined, an impairment loss has occurred with respect to those digital assets in the amount equal to the difference between their carrying values and the price determined.

Impairment losses are recognized within Restructuring and other in the consolidated statements of operations in the period in which the impairment is identified. The impaired digital assets are written down to their fair value at the time of impairment and this new cost basis will not be adjusted upward for any subsequent increase in fair value. Gains are not recorded until realized upon sale(s), at which point they are presented net of any impairment losses for the same digital assets held within Restructuring and other. In determining the gain to be recognized upon sale, we calculate the difference between the sales price and carrying value of the digital assets sold immediately prior to sale.

See Note 3, *Digital Assets, Net*, for further information regarding digital assets.

Warranties

We provide a manufacturer's warranty on all new and used vehicles and a warranty on the installation and components of the energy generation and storage systems we sell for periods typically between 10 to 25 years. We accrue a warranty reserve for the products sold by us, which includes our best estimate of the projected costs to repair or replace items under warranties and recalls if identified. These estimates are based on actual claims incurred to date and an estimate of the nature, frequency and costs of future claims. These estimates are inherently uncertain given our relatively short history of sales, and changes to our historical or projected warranty experience may cause material changes to the warranty reserve in the future. The warranty reserve does not include projected warranty costs associated with our vehicles subject to operating lease accounting and our solar energy systems under lease contracts or Power Purchase Agreements ("PPAs"), as the costs to repair these warranty claims are expensed as incurred. The portion of the warranty reserve expected to be incurred within the next 12 months is included within Accrued liabilities and other, while the remaining balance is included within Other long-term liabilities on the consolidated balance sheets. Warranty expense is recorded as a component of Cost of revenues in the consolidated statements of operations. Due to the magnitude of our automotive business, accrued warranty balance was primarily related to our automotive segment. Accrued warranty activity consisted of the following (in millions):

	Three Months Ended March 31,	
	2021	2020
Accrued warranty—beginning of period	\$ 1,468	\$ 1,089
Warranty costs incurred	(116)	(81)
Net changes in liability for pre-existing warranties, including expirations and foreign exchange impact	(1)	3
Provision for warranty	183	119
Accrued warranty—end of period	<u>\$ 1,534</u>	<u>\$ 1,130</u>

*Recent Accounting Pronouncements**Recently issued accounting pronouncements not yet adopted*

In March 2020, the FASB issued ASU No. 2020-04, Facilitation of the Effects of Reference Rate Reform on Financial Reporting (Topic 848). The ASU provides optional expedients and exceptions for applying GAAP to transactions affected by reference rate (e.g., LIBOR) reform if certain criteria are met, for a limited period of time to ease the potential burden in accounting for (or recognizing the effects of) reference rate reform on financial reporting. The ASU is effective as of March 12, 2020 through December 31, 2022. We will evaluate transactions or contract modifications occurring as a result of reference rate reform and determine whether to apply the optional guidance on an ongoing basis. The ASU is currently not expected to have a material impact on our consolidated financial statements.

Recently adopted accounting pronouncements

In December 2019, the FASB issued ASU No. 2019-12, Simplifying the Accounting for Income Taxes, as part of its initiative to reduce complexity in accounting standards. The amendments in the ASU include removing exceptions to incremental intraperiod tax allocation of losses and gains from different financial statement components, exceptions to the method of recognizing income taxes on interim period losses, and exceptions to deferred tax liability recognition related to foreign subsidiary investments. In addition, the ASU requires that entities recognize franchise tax based on an incremental method and requires an entity to evaluate the accounting for step-ups in the tax basis of goodwill as inside or outside of a business combination. We adopted ASU 2019-12 starting 2021, which did not have a material impact on our consolidated financial statements.

ASU 2020-06

In August 2020, the FASB issued ASU 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity. The ASU simplifies the accounting for convertible instruments by removing certain separation models in ASC 470-20, Debt—Debt with Conversion and Other Options, for convertible instruments. The ASU updates the guidance on certain embedded conversion features that are not required to be accounted for as derivatives under Topic 815, Derivatives and Hedging, or that do not result in substantial premiums accounted for as paid-in capital, such that those features are no longer required to be separated from the host contract. The convertible debt instruments will be accounted for as a single liability measured at amortized cost. This will also result in the interest expense recognized for convertible debt instruments to be typically closer to the coupon interest rate when applying the guidance in Topic 835, Interest. Further, the ASU made amendments to the EPS guidance in Topic 260 for convertible debt instruments, the most significant impact of which is requiring the use of the if-converted method for diluted EPS calculation, and no longer allowing the net share settlement method. The ASU also made revisions to Topic 815-40, which provides guidance on how an entity must determine whether a contract qualifies for a scope exception from derivative accounting. The amendments to Topic 815-40 change the scope of contracts that are recognized as assets or liabilities. The ASU is effective for interim and annual periods beginning after December 15, 2021, with early adoption permitted for periods beginning after December 15, 2020. Adoption of the ASU can either be on a modified retrospective or full retrospective basis.

On January 1, 2021, we adopted the ASU using the modified retrospective method. We recognized a cumulative effect of initially applying the ASU as an adjustment to the January 1, 2021 opening balance of accumulated deficit. Due to the recombination of the equity conversion component of our convertible debt remaining outstanding, additional paid in capital and convertible senior notes (mezzanine equity) were reduced. The removal of the remaining debt discounts recorded for this previous separation has the effect of increasing our net debt balance and the reduction of property, plant and equipment was related to previously capitalized interest. The prior period consolidated financial statements have not been retrospectively adjusted and continue to be reported under the accounting standards in effect for those periods.

Accordingly, the cumulative effect of the changes made on our January 1, 2021 consolidated balance sheet for the adoption of the ASU was as follows (in millions):

	Balances at December 31, 2020	Adjustments from Adoption of ASU 2020- 06	Balances at January 1, 2021
Assets			
Property, plant and equipment, net	\$ 12,747	\$ (45)	\$ 12,702
Liabilities			
Current portion of debt and finance leases	2,132	50	2,182
Debt and finance leases, net of current portion	9,556	219	9,775
Mezzanine equity			
Convertible senior notes	51	(51)	—
Equity			
Additional paid-in capital	27,260	(474)	26,786
Accumulated deficit	(5,399)	211	(5,188)

The impact of adoption on our consolidated statements of operations for the three months ended March 31, 2021 was primarily to decrease net interest expense by \$145 million and to decrease depreciation expense by an immaterial amount. This had the effect of increasing our basic and diluted net income per share of common stock attributable to common stockholders for the three months ended March 31, 2021 by \$0.15 and \$0.13, respectively. The change in methodology to determine the denominator used in the calculation of diluted net income per share of common stock attributable to common stockholders contributed less than \$0.01 of the increase by requiring the use of the if-converted method as discussed above.

Note 3 – Digital Assets, Net

During the three months ended March 31, 2021, we purchased and received \$1.50 billion of bitcoin. During the three months ended March 31, 2021, we recorded \$27 million of impairment losses on bitcoin. We also realized gains of \$128 million through sales during the three months ended March 31, 2021. Such gains are presented net of impairment losses in Restructuring and other in the consolidated statement of operations. As of March 31, 2021, the carrying value of our bitcoin held was \$1.33 billion, which reflects cumulative impairments of \$27 million. The fair market value of bitcoin held as of March 31, 2021 was \$2.48 billion.

Note 4 – Goodwill and Intangible Assets

Goodwill decreased \$1 million within the automotive segment from \$207 million as of December 31, 2020 to \$206 million as of March 31, 2021 due to foreign currency translation adjustments during the three months ended March 31, 2021. There were no accumulated impairment losses as of March 31, 2021 and December 31, 2020.

Information regarding our intangible assets including assets recognized from our acquisitions was as follows (in millions):

	March 31, 2021				December 31, 2020			
	Gross Carrying Amount	Accumulated Amortization	Other	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Other	Net Carrying Amount
Finite-lived intangible assets:								
Developed technology	\$ 302	\$ (122)	\$ 3	\$ 183	\$ 302	\$ (111)	\$ 3	\$ 194
Trade names	3	(1)	—	2	3	(1)	—	2
Favorable contracts and leases, net	113	(34)	—	79	113	(32)	—	81
Other	38	(19)	1	20	38	(18)	1	21
Total finite-lived intangible assets	456	(176)	4	284	456	(162)	4	298
Indefinite-lived intangible assets:								
Gigafactory Nevada water rights	15	—	—	15	15	—	—	15
Total intangible assets	<u>\$ 471</u>	<u>\$ (176)</u>	<u>\$ 4</u>	<u>\$ 299</u>	<u>\$ 471</u>	<u>\$ (162)</u>	<u>\$ 4</u>	<u>\$ 313</u>

Total future amortization expense for finite-lived intangible assets was estimated as follows (in millions):

Nine months ending December 31, 2021	\$ 37
2022	50
2023	44
2024	29
2025	29
Thereafter	95
Total	<u>\$ 284</u>

Note 5 – Fair Value of Financial Instruments

ASC 820, *Fair Value Measurements*, states that fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. The three-tiered fair value hierarchy, which prioritizes which inputs should be used in measuring fair value, is comprised of: (Level I) observable inputs such as quoted prices in active markets; (Level II) inputs other than quoted prices in active markets that are observable either directly or indirectly and (Level III) unobservable inputs for which there is little or no market data. The fair value hierarchy requires the use of observable market data when available in determining fair value. Our assets and liabilities that were measured at fair value on a recurring basis were as follows (in millions):

	March 31, 2021				December 31, 2020			
	Fair Value	Level I	Level II	Level III	Fair Value	Level I	Level II	Level III
Money market funds (cash and cash equivalents)	\$ 11,366	\$ 11,366	\$ —	\$ —	\$ 13,847	\$ 13,847	\$ —	\$ —
Interest rate swap liabilities	30	—	30	—	58	—	58	—
Total	<u>\$ 11,396</u>	<u>\$ 11,366</u>	<u>\$ 30</u>	<u>\$ —</u>	<u>\$ 13,905</u>	<u>\$ 13,847</u>	<u>\$ 58</u>	<u>\$ —</u>

All of our money market funds were classified within Level I of the fair value hierarchy because they were valued using quoted prices in active markets. Our interest rate swaps were classified within Level II of the fair value hierarchy because they were valued using alternative pricing sources or models that utilized market observable inputs, including current and forward interest rates.

Interest Rate Swaps

We enter into fixed-for-floating interest rate swap agreements to swap variable interest payments on certain debt for fixed interest payments, as required by certain of our lenders. We do not designate our interest rate swaps as hedging instruments. Accordingly, our interest rate swaps are recorded at fair value on the consolidated balance sheets within Other non-current assets or Other long-term liabilities, with any changes in their fair values recognized as Other income (expense), net, in the consolidated statements of operations and with any cash flows recognized as operating activities in the consolidated statements of cash flows. Our interest rate swaps outstanding were as follows (in millions):

	March 31, 2021			December 31, 2020		
	Aggregate Notional Amount	Gross Asset at Fair Value	Gross Liability at Fair Value	Aggregate Notional Amount	Gross Asset at Fair Value	Gross Liability at Fair Value
Interest rate swaps	\$ 398	\$ —	\$ 30	\$ 554	\$ —	\$ 58

Our interest rate swaps activity was as follows (in millions):

	Three Months Ended March 31,	
	2021	2020
Gross losses	\$ —	\$ 39
Gross gains	\$ 20	\$ —

Disclosure of Fair Values

Our financial instruments that are not re-measured at fair value include accounts receivable, MyPower customer notes receivable, accounts payable, accrued liabilities, customer deposits and debt. The carrying values of these financial instruments other than our 2021 Notes, 2022 Notes, 2024 Notes, and our subsidiary's 5.50% Convertible Senior Notes due in 2022 (collectively referred to as "Convertible Senior Notes" below), 5.30% Senior Notes due in 2025 ("2025 Notes"), solar asset-backed notes and solar loan-backed notes approximate their fair values.

We estimate the fair value of the Convertible Senior Notes and the 2025 Notes using commonly accepted valuation methodologies and market-based risk measurements that are indirectly observable, such as credit risk (Level II). In addition, we estimate the fair values of our solar asset-backed notes and solar loan-backed notes based on rates currently offered for instruments with similar maturities and terms (Level III). The following table presents the estimated fair values and the carrying values (in millions):

	March 31, 2021		December 31, 2020	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Convertible Senior Notes	\$ 790	\$ 8,410	\$ 1,971	\$ 24,596
2025 Notes	\$ 1,786	\$ 1,868	\$ 1,785	\$ 1,877
Solar asset-backed notes	\$ 1,097	\$ 1,118	\$ 1,115	\$ 1,137
Solar loan-backed notes	\$ 128	\$ 135	\$ 146	\$ 152

Note 6 – Inventory

Our inventory consisted of the following (in millions):

	March 31, 2021	December 31, 2020
Raw materials	\$ 1,836	\$ 1,508
Work in process	454	493
Finished goods (1)	1,341	1,666
Service parts	501	434
Total	<u>\$ 4,132</u>	<u>\$ 4,101</u>

- (1) Finished goods inventory includes vehicles in transit to fulfill customer orders, new vehicles available for sale, used vehicles, energy storage products and Solar Roof products available for sale.

For solar energy systems, we commence transferring component parts from inventory to construction in progress, a component of solar energy systems, once a lease or PPA contract with a customer has been executed and installation has been initiated. Additional costs incurred on the leased solar energy systems, including labor and overhead, are recorded within solar energy systems under construction.

We write-down inventory for any excess or obsolete inventories or when we believe that the net realizable value of inventories is less than the carrying value. During the three months ended March 31, 2021 and 2020, we recorded write-downs of \$35 million in Cost of revenues and Research and development expenses and \$45 million in Cost of revenues, respectively.

Note 7 – Property, Plant and Equipment, Net

Our property, plant and equipment, net, consisted of the following (in millions):

	March 31, 2021	December 31, 2020
Machinery, equipment, vehicles and office furniture	\$ 8,711	\$ 8,493
Tooling	1,916	1,811
Leasehold improvements	1,494	1,421
Land and buildings	3,681	3,662
Computer equipment, hardware and software	1,020	856
Construction in progress	2,435	1,621
	<u>19,257</u>	<u>17,864</u>
Less: Accumulated depreciation	(5,389)	(5,117)
Total	<u>\$ 13,868</u>	<u>\$ 12,747</u>

Construction in progress is primarily comprised of construction of Gigafactory Berlin and Gigafactory Texas, expansion of Gigafactory Shanghai and equipment and tooling related to the manufacturing of our products. We are currently constructing Gigafactory Berlin under conditional permits in anticipation of being granted final permits. Completed assets are transferred to their respective asset classes, and depreciation begins when an asset is ready for its intended use. Interest on outstanding debt is capitalized during periods of significant capital asset construction and amortized over the useful lives of the related assets. During the three months ended March 31, 2021 and 2020, we capitalized \$15 million and \$10 million, respectively, of interest.

Depreciation expense during the three months ended March 31, 2021 and 2020 was \$424 million and \$371 million, respectively. Gross property, plant and equipment under finance leases as of March 31, 2021 and December 31, 2020 was \$2.34 billion and \$2.28 billion, respectively, with accumulated depreciation of \$907 million and \$816 million, respectively.

Panasonic has partnered with us on Gigafactory Nevada with investments in the production equipment that it uses to manufacture and supply us with battery cells. Under our arrangement with Panasonic, we plan to purchase the full output from their production equipment at negotiated prices. As the terms of the arrangement convey a finance lease under ASC 842, Leases, we account for their production equipment as leased assets when production commences. We account for each lease and any non-lease components associated with that lease as a single lease component for all asset classes, except production equipment classes embedded in supply agreements. This results in us recording the cost of their production equipment within Property, plant and equipment, net, on the consolidated balance sheets with a corresponding liability recorded to debt and finance leases. Depreciation on Panasonic production equipment is computed using the units-of-production method whereby capitalized costs are amortized over the total estimated productive life of the respective assets. As of March 31, 2021 and December 31, 2020, we had cumulatively capitalized costs of \$1.79 billion and \$1.77 billion, respectively, on the consolidated balance sheets in relation to the production equipment under our Panasonic arrangement.

Note 8 – Accrued Liabilities and Other

As of March 31, 2021 and December 31, 2020, accrued liabilities and other current liabilities consisted of the following (in millions):

	March 31, 2021	December 31, 2020
Accrued purchases (1)	\$ 993	\$ 901
Taxes payable (2)	828	777
Payroll and related costs	660	654
Accrued warranty reserve, current portion	544	479
Sales return reserve, current portion	430	417
Operating lease liabilities, current portion	309	286
Accrued interest	36	77
Other current liabilities	273	264
Total	<u>\$ 4,073</u>	<u>\$ 3,855</u>

- (1) Accrued purchases primarily reflects receipts of goods and services that we had not been invoiced yet. As we are invoiced for these goods and services, this balance will reduce and accounts payable will increase.
- (2) Taxes payable includes value added tax, sales tax, property tax, use tax and income tax payables.

Note 9 – Other Long-Term Liabilities

As of March 31, 2021 and December 31, 2020, other long-term liabilities consisted of the following (in millions):

	March 31, 2021	December 31, 2020
Operating lease liabilities	\$ 1,330	\$ 1,254
Accrued warranty reserve	990	989
Sales return reserve	424	500
Deferred tax liability	144	151
Other non-current liabilities	395	436
Total other long-term liabilities	<u>\$ 3,283</u>	<u>\$ 3,330</u>

Note 10 – Debt

The following is a summary of our debt and finance leases as of March 31, 2021 (in millions):

	Net Carrying Value		Unpaid Principal Balance	Unused Committed Amount (1)	Contractual Interest Rates	Contractual Maturity Date
	Current	Long-Term				
Recourse debt:						
2022 Notes	\$ 317	\$ —	\$ 319	\$ —	2.375 %	March 2022
2024 Notes	51	378	439	—	2.00 %	May 2024
2025 Notes	—	1,786	1,800	—	5.30 %	August 2025
Credit Agreement	—	1,898	1,898	266	3.3 %	July 2023
Solar Bonds and other Loans	30	23	53	—	4.0-5.8 %	June 2021 - January 2031
Total recourse debt	398	4,085	4,509	266		
Non-recourse debt:						
Automotive Asset-backed Notes	936	1,636	2,582	—	0.2-7.9 %	August 2021-March 2025
Solar Asset-backed Notes	39	1,058	1,125	—	2.9%-7.7 %	September 2024-February 2048
China Loan Agreements	—	614	614	1,368	4.0 %	June 2021-December 2024
Cash Equity Debt	19	406	436	—	5.3%-5.8 %	July 2033-January 2035
Solar Loan-backed Notes	13	115	134	—	4.8%-7.5 %	September 2048-September 2049
Warehouse Agreements	—	—	—	1,100	Not applicable	September 2022
Automotive Lease-backed Credit Facilities	10	24	34	148	0.8-5.9 %	September 2022-November 2022
Solar Revolving Credit Facility and other Loans	—	81	81	23	2.7-5.1 %	June 2022-February 2033
Total non-recourse debt	1,017	3,934	5,006	2,639		
Total debt	1,415	8,019	\$ 9,515	\$ 2,905		
Finance leases	404	1,034				

Total debt and finance leases

<u>\$</u>	<u>1,819</u>	<u>\$</u>	<u>9,053</u>
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The following is a summary of our debt and finance leases as of December 31, 2020 (in millions):

	Net Carrying Value		Unpaid	Unused	Contractual	Contractual
	Current	Long-Term	Principal	Committed		
			Balance	Amount (1)	Interest Rates	Maturity Date
Recourse debt:						
2021 Notes	\$ 419	\$ —	\$ 422	\$ —	1.25 %	March 2021
2022 Notes	115	366	503	—	2.375 %	March 2022
2024 Notes	171	856	1,282	—	2.00 %	May 2024
2025 Notes	—	1,785	1,800	—	5.30 %	August 2025
Credit Agreement	—	1,895	1,895	278	3.3 %	July 2023
Solar Bonds and other Loans	4	49	55	—	3.6%-5.8 %	January 2021 - January 2031
Total recourse debt	709	4,951	5,957	278		
Non-recourse debt:						
Automotive Asset-backed Notes	777	921	1,705	—	0.6%-7.9 %	August 2021-August 2024
Solar Asset-backed Notes	39	1,076	1,141	—	3.0%-7.7 %	September 2024-February 2048
China Loan Agreements	—	616	616	1,372	4.0 %	June 2021-December 2024
Cash Equity Debt	18	408	439	—	5.3%-5.8 %	July 2033-January 2035
Solar Loan-backed Notes	13	133	152	—	4.8%-7.5 %	September 2048-September 2049
Warehouse Agreements	37	257	294	806	1.7%-1.8 %	September 2022
Solar Term Loan	151	—	151	—	3.7 %	January 2021
Automotive Lease-backed Credit Facility	14	19	33	153	1.9%-5.9 %	September 2022-November 2022
Solar Revolving Credit Facility and other Loans	—	81	81	23	2.7%-5.1 %	June 2022-February 2033
Total non-recourse debt	1,049	3,511	4,612	2,354		
Total debt	1,758	8,462	\$ 10,569	\$ 2,632		
Finance leases	374	1,094				
Total debt and finance leases	\$ 2,132	\$ 9,556				

- (1) There are no restrictions on draw-down or use for general corporate purposes with respect to any available committed funds under our credit facilities and financing funds, except certain specified conditions prior to draw-down, including pledging to our lenders sufficient amounts of qualified receivables, inventories, leased vehicles and our interests in those leases, solar energy systems and the associated customer contracts, our interests in financing funds or various other assets and as may be described below and in the notes to the consolidated financial statements included in our report on Form 10-K for the year ended December 31, 2020.

Recourse debt refers to debt that is recourse to our general assets. Non-recourse debt refers to debt that is recourse to only assets of our subsidiaries. The differences between the unpaid principal balances and the net carrying values are due to debt discounts or deferred financing costs. The debt discounts were updated as of January 1, 2021 for our convertible notes with the adoption of ASU 2020-06 as discussed in Note 2, *Summary of Significant Accounting Policies*. As of March 31, 2021, we were in material compliance with all financial debt covenants, which include minimum liquidity and expense-coverage balances and ratios.

2021 Notes, 2022 Notes and 2024 Notes

During the first quarter of 2021, the closing price of our common stock exceeded 130% of the applicable conversion price of each of our 2022 Notes and 2024 Notes on at least 20 of the last 30 consecutive trading days of the quarter; causing the 2022 Notes and 2024 Notes to be convertible by their holders during the second quarter of 2021. As we now expect to settle a portion of the 2024 Notes in the second quarter of 2021, we reclassified \$51 million of the carrying value of the 2024 Notes from debt and finance leases, net of current portion to current portion of debt and finance leases on our consolidated balance sheet as of March 31, 2021. Should the closing price conditions be met in a future quarter for any of these notes, such notes will be convertible at their holders' option during the immediately following quarter.

On January 1, 2021, we adopted ASU 2020-06 using the modified retrospective method. As a result of this adoption, we have de-recognized the remaining debt discounts on the 2022 Notes and 2024 Notes and therefore no longer recognize any amortization of debt discounts as interest expense (see Note 2, *Summary of Significant Accounting Policies*). During the first quarter of 2021, \$422 million, \$184 million and \$843 million in aggregate principal amount of the 2021 Notes, 2022 Notes and 2024 Notes, respectively, were settled for \$422 million, \$184 million and \$843 million in cash for their par amount, and the issuance of 5.3 million, 2.5 million and 12.5 million shares of our common stock for the conversion premium, respectively. The note hedges we entered into in connection with the issuance of the 2021 Notes, 2022 Notes and 2024 Notes were automatically settled with the respective conversions of the 2021 Notes, 2022 Notes and 2024 Notes, resulting in the receipt of 5.3 million, 2.5 million and 12.5 million shares of our common stock, respectively. In March 2021, the 2021 Notes were fully settled.

Automotive Asset-backed Notes and Warehouse Agreements

In March 2021, we transferred beneficial interests related to certain leased vehicles into an SPE and issued \$1.08 billion in aggregate principal amount of Automotive Asset-backed Notes, with terms similar to our other Automotive Asset-backed Notes. The proceeds from the issuance, net of discounts and fees, were \$1.07 billion. In conjunction with this financing we repaid the remaining outstanding balance of our vehicle lease-backed loan and security agreement (the "2016 Warehouse Agreement"), for which committed funds remained available for future borrowings.

China Loan Agreements

In April 2021, we fully repaid the \$614 million in aggregate principal of our secured term loan facility in connection with the construction of Gigafactory Shanghai (the "Fixed Asset Facility") and the facility was terminated. After the termination, the \$758 million of unused commitment under the Fixed Asset Facility included in the debt and finance lease table as of March 31, 2021 above was no longer available.

Solar Term Loan

In January 2021, our Solar Term Loan matured and was repaid.

Interest Expense

The following table presents the interest expense related to the contractual interest coupon, the amortization of debt issuance costs and the amortization of debt discounts on our convertible senior notes with cash conversion features, which include the 2021 Notes, the 2022 Notes and the 2024 Notes (in millions):

	Three Months Ended March 31,	
	2021	2020
Contractual interest coupon	\$ 7	\$ 19
Amortization of debt issuance costs	2	2
Amortization of debt discounts (1)	—	44
Total	<u>\$ 9</u>	<u>\$ 65</u>

- (1) Under the modified retrospective method of adoption of ASU 2020-06, there was neither amortization of debt discounts, nor losses on extinguishment of debt recognized for the three months ended March 31, 2021. Refer to discussion above for further details.

Note 11 – Equity Incentive Plans**2018 CEO Performance Award**

In March 2018, our stockholders approved the Board of Directors' grant of 101.3 million stock option awards, as adjusted to give effect to the Stock Split, to our CEO (the "2018 CEO Performance Award"). The 2018 CEO Performance Award consists of 12 vesting tranches with a vesting schedule based entirely on the attainment of both operational milestones (performance conditions) and market conditions, assuming continued employment either as the CEO or as both Executive Chairman and Chief Product Officer and service through each vesting date. Each of the 12 vesting tranches of the 2018 CEO Performance Award will vest upon certification by the Board of Directors that both (i) the market capitalization milestone for such tranche, which begins at \$100.0 billion for the first tranche and increases by increments of \$50.0 billion thereafter (based on both a six calendar month trailing average and a 30 calendar day trailing average, counting only trading days), has been achieved, and (ii) any one of the following eight operational milestones focused on total revenue or any one of the eight operational milestones focused on Adjusted EBITDA have been achieved for the four consecutive fiscal quarters on an annualized basis and subsequently reported by us in our financial statements filed with our Forms 10-Q and/or 10-K. Adjusted EBITDA is defined as net income (loss) attributable to common stockholders before interest expense, provision (benefit) for income taxes, depreciation and amortization and stock-based compensation. Upon vesting and exercise, including the payment of the exercise price of \$70.01 per share, our CEO must hold shares that he acquires for five years post-exercise, other than a cashless exercise where shares are simultaneously sold to pay for the exercise price and any required tax withholding.

The achievement status of the operational milestones as of March 31, 2021 is provided below. Although an operational milestone is deemed achieved in the last quarter of the relevant annualized period, it may be certified only after the financial statements supporting its achievement have been filed with our Forms 10-Q and/or 10-K.

Total Annualized Revenue			Annualized Adjusted EBITDA		
Milestone (in billions)		Achievement Status	Milestone (in billions)		Achievement Status
\$	20.0	Achieved	\$	1.5	Achieved
\$	35.0	Achieved (1)	\$	3.0	Achieved
\$	55.0	Probable	\$	4.5	Achieved
\$	75.0	-	\$	6.0	Achieved (1)
\$	100.0	-	\$	8.0	Probable
\$	125.0	-	\$	10.0	-
\$	150.0	-	\$	12.0	-
\$	175.0	-	\$	14.0	-

(1) Achieved in the first quarter of 2021 and expected to be certified following the filing of this Quarterly Report on Form 10-Q.

Stock-based compensation under the 2018 CEO Performance Award represents a non-cash expense and is recorded as a Selling, general, and administrative operating expense in our consolidated statement of operations. In each quarter since the grant of the 2018 CEO Performance Award, we have recognized expense, generally on a pro-rated basis, for only the number of tranches (up to the maximum of 12 tranches) that corresponds to the number of operational milestones that have been achieved or have been determined probable of being achieved in the future, in accordance with the following principles.

On the grant date, a Monte Carlo simulation was used to determine for each tranche (i) a fixed amount of expense for such tranche and (ii) the future time when the market capitalization milestone for such tranche was expected to be achieved, or its “expected market capitalization milestone achievement time.” Separately, based on a subjective assessment of our future financial performance, each quarter we determine whether it is probable that we will achieve each operational milestone that has not previously been achieved or deemed probable of achievement and if so, the future time when we expect to achieve that operational milestone, or its “expected operational milestone achievement time.” When we first determine that an operational milestone has become probable of being achieved, we allocate the entire expense for the related tranche over the number of quarters between the grant date and the then-applicable “expected full achievement time.” The “expected full achievement time” at any given time is the later of (i) the expected operational milestone achievement time (if the related operational milestone has not yet been achieved) and (ii) the expected market capitalization milestone achievement time (if the related market capitalization milestone has not yet been achieved). We immediately recognize a catch-up expense for all accumulated expense for the quarters from the grant date through the quarter in which the operational milestone was first deemed probable of being achieved. Each quarter thereafter, we recognize the prorated portion of the then-remaining expense for the tranche based on the number of quarters between such quarter and the then-applicable expected full achievement time, except that upon the achievement of both a market capitalization milestone and operational milestone with respect to a tranche, all remaining expense for that tranche is immediately recognized.

As a result, we have experienced, and may experience in the future, significant catch-up expenses in quarters when one or more operational milestones are first determined to be probable of being achieved. Historically, the expected market capitalization achievement times were generally later than the related expected operational milestone achievement times. Therefore, when market capitalization milestones are achieved earlier than originally forecasted, for example due to periods of rapid stock price appreciation, this has resulted, and may result in the future, in higher catch-up expenses and the remaining expenses being recognized over shorter periods of time at a higher per-quarter rate. During the first quarter of 2021, all remaining market capitalization milestones except for the milestone relating to \$650.0 billion were achieved.

During the first quarter of 2021, the operational milestone of annualized revenue of \$55.0 billion became probable of being achieved and consequently, we recognized a catch-up expense of \$116 million.

As of March 31, 2021, we had \$129 million of total unrecognized stock-based compensation expense for the operational milestones that were considered probable of achievement, which will be recognized over a weighted-average period of 0.9 years. As of March 31, 2021, we had unrecognized stock-based compensation expense of \$548 million for the operational milestones that were considered not probable of achievement. For the three months ended March 31, 2021 and 2020 we recorded stock-based compensation expense of \$299 million and \$66 million related to the 2018 CEO Performance Award, respectively.

Summary Stock-Based Compensation Information

The following table summarizes our stock-based compensation expense by line item in the consolidated statements of operations (in millions):

	Three Months Ended March 31,	
	2021	2020
Cost of revenues	\$ 103	\$ 33
Research and development	125	65
Selling, general and administrative	386	113
Total	<u>\$ 614</u>	<u>\$ 211</u>

Our income tax benefits recognized from stock-based compensation arrangements in each of the periods presented were immaterial due to cumulative losses and valuation allowances.

Note 12 – Commitments and Contingencies***Operating Lease Arrangement in Buffalo, New York***

We have an operating lease through the Research Foundation for the State University of New York (the “SUNY Foundation”) with respect to Gigafactory New York. Under the lease and a related research and development agreement, we are continuing to further develop the facility.

Under this agreement, we are obligated to, among other things, meet employment targets as well as specified minimum numbers of personnel in the State of New York and in Buffalo, New York and spend or incur \$5.00 billion in combined capital, operational expenses, costs of goods sold and other costs in the State of New York during the 10-year period beginning April 30, 2018. On an annual basis during the initial lease term, as measured on each anniversary of such date, if we fail to meet these specified investment and job creation requirements, then we would be obligated to pay a \$41 million “program payment” to the SUNY Foundation for each year that we fail to meet these requirements. Furthermore, if the arrangement is terminated due to a material breach by us, then additional amounts may become payable by us.

As we temporarily suspended most of our manufacturing operations at Gigafactory New York pursuant to a New York State executive order issued in March 2020 as a result of the COVID-19 pandemic, we were granted a one-year deferral of our obligation to be compliant with our applicable targets under such agreement on April 30, 2020, which was memorialized in an amendment to our agreement with the SUNY Foundation in July 2020. In April 2021, we were granted an additional deferral through December 31, 2021 subject only to memorialization in writing by us and the SUNY Foundation, as our operations at Gigafactory New York have not yet fully ramped due to a number of factors related to the pandemic. Given that we would have met all targets originally required as of April 30, 2020 if they had been measured prior to the mandated reduction of operations in March 2020, and we are currently in excess of such targets relating to investments and personnel in the State of New York, we do not currently expect any issues meeting our applicable obligations following this expected deferral or in the years beyond. However, if our expectations as to the costs and timelines of our investment and operations at Buffalo or our production ramp of the Solar Roof prove incorrect, we may incur additional expenses or substantial payments to the SUNY Foundation.

Operating Lease Arrangement in Shanghai, China

We have an operating lease arrangement for an initial term of 50 years with the local government of Shanghai for land use rights where we are constructing Gigafactory Shanghai. Under the terms of the arrangement, we are required to spend RMB 14.08 billion in capital expenditures by the end of 2023, and to generate RMB 2.23 billion of annual tax revenues starting at the end of 2023. If we are unwilling or unable to meet such target or obtain periodic project approvals, in accordance with the Chinese government’s standard terms for such arrangements, we would be required to revert the site to the local government and receive compensation for the remaining value of the land lease, buildings and fixtures. We believe the capital expenditure requirement and the tax revenue target will be attainable even if our actual vehicle production was far lower than the volumes we are forecasting.

Legal Proceedings***Litigation Relating to the SolarCity Acquisition***

Between September 1, 2016 and October 5, 2016, seven lawsuits were filed in the Delaware Court of Chancery by purported stockholders of Tesla challenging our acquisition of SolarCity Corporation (“SolarCity”). Following consolidation, the lawsuit names as defendants the members of Tesla’s board of directors as then constituted and alleges, among other things, that board members breached their fiduciary duties in connection with the acquisition. The complaint asserts both derivative claims and direct claims on behalf of a purported class and seeks, among other relief, unspecified monetary damages, attorneys’ fees, and costs. On January 27, 2017, defendants filed a motion to dismiss the operative complaint. Rather than respond to the defendants’ motion, the plaintiffs filed an amended complaint. On March 17, 2017, defendants filed a motion to dismiss the amended complaint. On December 13, 2017, the Court heard oral argument on the motion. On March 28, 2018, the Court denied defendants’ motion to dismiss. Defendants filed a request for interlocutory appeal, and the Delaware Supreme Court denied that request without ruling on the merits but electing not to hear an appeal at this early stage of the case. Defendants filed their answer on May 18, 2018, and mediations were held on June 10, 2019. Plaintiffs and defendants filed respective motions for summary judgment on August 25, 2019, and further mediations were held on October 3, 2019. The Court held a hearing on the motions for summary judgment on November 4, 2019. On January 22, 2020, all of the director defendants except Elon Musk reached a settlement to resolve the lawsuit against them for an amount to be paid entirely under the applicable insurance policy. The settlement, which does not involve an admission of any wrongdoing by any party, was approved by the Court on August 17, 2020. Tesla received payment of approximately \$43 million on September 16, 2020, which has been recognized in our consolidated statement of operations as a reduction to Selling, general and administrative operating expenses for costs previously incurred related to the acquisition of SolarCity. On February 4, 2020, the Court issued a ruling that denied plaintiffs’ previously-filed motion for summary judgment and granted in part and denied in part defendants’ previously-filed motion for summary judgment. Fact and expert discovery is complete, and the case was set for trial in March 2020 until it was postponed by the Court due to safety precautions concerning COVID-19. The current dates for the trial are from July 12 to July 23, 2021, subject to change based on any further safety measures implemented by the Court.

These plaintiffs and others filed parallel actions in the U.S. District Court for the District of Delaware on or about April 21, 2017. They include claims for violations of the federal securities laws and breach of fiduciary duties by Tesla’s board of directors. Those actions have been consolidated and stayed pending the above-referenced Chancery Court litigation.

Securities Litigation Relating to Production of Model 3 Vehicles

On October 10, 2017, a purported stockholder class action was filed in the U.S. District Court for the Northern District of California against Tesla, two of its current officers and a former officer. The complaint alleges violations of federal securities laws and seeks unspecified compensatory damages and other relief on behalf of a purported class of purchasers of Tesla securities from May 4, 2016 to October 6, 2017. The lawsuit claims that Tesla supposedly made materially false and misleading statements regarding Tesla’s preparedness to produce Model 3 vehicles. Plaintiffs filed an amended complaint on March 23, 2018, and defendants filed a motion to dismiss on May 25, 2018. The court granted defendants’ motion to dismiss with leave to amend. Plaintiffs filed their amended complaint on September 28, 2018, and defendants filed a motion to dismiss the amended complaint on February 15, 2019. The hearing on the motion to dismiss was held on March 22, 2019, and on March 25, 2019, the Court ruled in favor of defendants and dismissed the complaint with prejudice. On April 8, 2019, plaintiffs filed a notice of appeal to the U.S. Court of Appeals for the Ninth Circuit (“Ninth Circuit”) and on July 17, 2019 filed their opening brief. We filed our opposition on September 16, 2019, and plaintiffs filed their reply on October 8, 2019. A hearing on the appeal was held before a three-judge panel on April 30, 2020. On January 26, 2021, the panel affirmed the District Court’s dismissal of the complaint with prejudice. On March 5, 2021, the Ninth Circuit denied plaintiffs’ request for a rehearing before the full court, and a mandate issued on March 16, 2021.

On October 26, 2018, in a similar action, a purported stockholder class action was filed in the Superior Court of California in Santa Clara County against Tesla, Elon Musk and seven initial purchasers in an offering of debt securities by Tesla in August 2017. The complaint alleges misrepresentations made by Tesla regarding the number of Model 3 vehicles Tesla expected to produce by the end of 2017 in connection with such offering and seeks unspecified compensatory damages and other relief on behalf of a purported class of purchasers of Tesla securities in such offering. Tesla thereafter removed the case to federal court. On January 22, 2019, plaintiff abandoned its effort to proceed in state court, instead filing an amended complaint against Tesla, Elon Musk and seven initial purchasers in the debt offering before the same judge in the U.S. District Court for the Northern District of California who is hearing the above-referenced earlier-filed federal case. On February 5, 2019, the Court stayed this new case pending a ruling on the motion to dismiss the complaint in the earlier-filed federal case. After such earlier-filed federal case was dismissed, defendants filed a motion on July 2, 2019 to dismiss this case as well. The case was then stayed pending a ruling from the Ninth Circuit on the earlier-filed federal case, with an agreement that if defendants prevailed on the appeal, plaintiffs would dismiss the later-filed case. Following the Ninth Circuit’s affirmance discussed above, the plaintiffs dismissed the later-filed case with prejudice on April 15, 2021.

Litigation Relating to 2018 CEO Performance Award

On June 4, 2018, a purported Tesla stockholder filed a putative class and derivative action in the Delaware Court of Chancery against Elon Musk and the members of Tesla's board of directors as then constituted, alleging corporate waste, unjust enrichment and that such board members breached their fiduciary duties by approving the stock-based compensation plan. The complaint seeks, among other things, monetary damages and rescission or reformation of the stock-based compensation plan. On August 31, 2018, defendants filed a motion to dismiss the complaint; plaintiff filed its opposition brief on November 1, 2018; and defendants filed a reply brief on December 13, 2018. The hearing on the motion to dismiss was held on May 9, 2019. On September 20, 2019, the Court granted the motion to dismiss as to the corporate waste claim but denied the motion as to the breach of fiduciary duty and unjust enrichment claims. Our answer was filed on December 3, 2019, and trial is set for April 2022. Fact discovery is ongoing.

Litigation Related to Directors' Compensation

On June 17, 2020, a purported Tesla stockholder filed a derivative action in the Delaware Court of Chancery, purportedly on behalf of Tesla, against certain of Tesla's current and former directors regarding compensation awards granted to Tesla's directors, other than Elon Musk, between 2017 and 2020. The suit asserts claims for breach of fiduciary duty and unjust enrichment and seeks declaratory and injunctive relief, unspecified damages and other relief. Defendants filed their answer on September 17, 2020. Trial is set for September 2022, and fact discovery is ongoing.

Litigation Relating to Potential Going Private Transaction

Between August 10, 2018 and September 6, 2018, nine purported stockholder class actions were filed against Tesla and Elon Musk in connection with Mr. Musk's August 7, 2018 Twitter post that he was considering taking Tesla private. All of the suits are now pending in the U.S. District Court for the Northern District of California. Although the complaints vary in certain respects, they each purport to assert claims for violations of federal securities laws related to Mr. Musk's statement and seek unspecified compensatory damages and other relief on behalf of a purported class of purchasers of Tesla's securities. Plaintiffs filed their consolidated complaint on January 16, 2019 and added as defendants the members of Tesla's board of directors. The now-consolidated purported stockholder class action was stayed while the issue of selection of lead counsel was briefed and argued before the Ninth Circuit. The Ninth Circuit ruled regarding lead counsel. Defendants filed a motion to dismiss the complaint on November 22, 2019. The hearing on the motion was held on March 6, 2020. On April 15, 2020, the Court denied defendants' motion to dismiss. The parties stipulated to certification of a class of stockholders, which the court granted on November 25, 2020. Trial is set for May 2022.

Between October 17, 2018 and March 8, 2021, seven derivative lawsuits were filed in the Delaware Court of Chancery, purportedly on behalf of Tesla, against Mr. Musk and the members of Tesla's board of directors, as constituted at relevant times, in relation to statements made and actions connected to a potential going private transaction, with certain of the lawsuits challenging additional Twitter posts by Mr. Musk, among other things. Five of those actions were consolidated, and all seven actions have been stayed pending resolution of the above-referenced consolidated purported stockholder class action. In addition to these cases, two derivative lawsuits were filed on October 25, 2018 and February 11, 2019 in the U.S. District Court for the District of Delaware, purportedly on behalf of Tesla, against Mr. Musk and the members of the Tesla board of directors as then constituted. Those cases have also been consolidated and stayed pending resolution of the above-referenced consolidated purported stockholder class action.

Unless otherwise stated, the individual defendants named in the stockholder proceedings described above and the Company with respect to the stockholder class action proceedings described above believe that the claims in such proceedings have no merit and intend to defend against them vigorously. We are unable to estimate the possible loss or range of loss, if any, associated with these claims.

Certain Investigations and Other Matters

We receive requests for information from regulators and governmental authorities, such as the National Highway Traffic Safety Administration, the National Transportation Safety Board, the SEC, the Department of Justice ("DOJ") and various state, federal, and international agencies. We routinely cooperate with such regulatory and governmental requests.

In particular, the SEC had issued subpoenas to Tesla in connection with (a) Elon Musk's prior statement that he was considering taking Tesla private and (b) certain projections that we made for Model 3 production rates during 2017 and other public statements relating to Model 3 production. The take-private investigation was resolved and closed with a settlement entered into with the SEC in September 2018 and as further clarified in April 2019 in an amendment. On December 4, 2019, the SEC (i) closed the investigation into the projections and other public statements regarding Model 3 production rates and (ii) issued a subpoena seeking information concerning certain financial data and contracts including Tesla's regular financing arrangements. Separately, the DOJ had also asked us to voluntarily provide it with information about the above matters related to taking Tesla private and Model 3 production rates.

Aside from the settlement, as amended, with the SEC relating to Mr. Musk's statement that he was considering taking Tesla private, there have not been any developments in these matters that we deem to be material, and to our knowledge no government agency in any ongoing investigation has concluded that any wrongdoing occurred. As is our normal practice, we have been cooperating and will continue to cooperate with government authorities. We cannot predict the outcome or impact of any ongoing matters. Should the government decide to pursue an enforcement action, there exists the possibility of a material adverse impact on our business, results of operation, prospects, cash flows and financial position.

We are also subject to various other legal proceedings and claims that arise from the normal course of business activities. If an unfavorable ruling or development were to occur, there exists the possibility of a material adverse impact on our business, results of operations, prospects, cash flows, financial position and brand.

Indemnification and Guaranteed Returns

We are contractually obligated to compensate certain fund investors for any losses that they may suffer in certain limited circumstances resulting from reductions in investment tax credits claimed under U.S. federal laws for the installation of solar power facilities and energy storage systems that are charged from a co-sited solar power facility ("ITC"s). Generally, such obligations would arise as a result of reductions to the value of the underlying solar energy systems as assessed by the U.S. Internal Revenue Service (the "IRS") for purposes of claiming ITCs. For each balance sheet date, we assess and recognize, when applicable, a distribution payable for the potential exposure from this obligation based on all the information available at that time, including any audits undertaken by the IRS. We believe that any payments to the fund investors in excess of the amounts already recognized by us for this obligation are not probable or material based on the facts known at the filing date.

The maximum potential future payments that we could have to make under this obligation would depend on the difference between the fair values of the solar energy systems sold or transferred to the funds as determined by us and the values that the IRS would determine as the fair value for the systems for purposes of claiming ITCs. We claim ITCs based on guidelines provided by the U.S. Treasury department and the statutory regulations from the IRS. We use fair values determined with the assistance of independent third-party appraisals commissioned by us as the basis for determining the ITCs that are passed-through to and claimed by the fund investors. Since we cannot determine exactly how the IRS will evaluate system values used in claiming ITCs, we are unable to reliably estimate the maximum potential future payments that it could have to make under this obligation as of each balance sheet date.

We are eligible to receive certain state and local incentives that are associated with renewable energy generation. The amount of incentives that can be claimed is based on the projected or actual solar energy system size and/or the amount of solar energy produced. We also currently participate in one state's incentive program that is based on either the fair market value or the tax basis of solar energy systems placed in service. State and local incentives received are allocated between us and fund investors in accordance with the contractual provisions of each fund. We are not contractually obligated to indemnify any fund investor for any losses they may incur due to a shortfall in the amount of state or local incentives actually received.

Note 13 – Variable Interest Entity Arrangements

We have entered into various arrangements with investors to facilitate the funding and monetization of our solar energy systems and vehicles. In particular, our wholly owned subsidiaries and fund investors have formed and contributed cash and assets into various financing funds and entered into related agreements. We have determined that the funds are variable interest entities ("VIEs") and we are the primary beneficiary of these VIEs by reference to the power and benefits criterion under ASC 810, *Consolidation*. We have considered the provisions within the agreements, which grant us the power to manage and make decisions that affect the operation of these VIEs, including determining the solar energy systems or vehicles and the associated customer contracts to be sold or contributed to these VIEs, redeploying solar energy systems or vehicles and managing customer receivables. We consider that the rights granted to the fund investors under the agreements are more protective in nature rather than participating.

As the primary beneficiary of these VIEs, we consolidate in the financial statements the financial position, results of operations and cash flows of these VIEs, and all intercompany balances and transactions between us and these VIEs are eliminated in the consolidated financial statements. Cash distributions of income and other receipts by a fund, net of agreed upon expenses, estimated expenses, tax benefits and detriments of income and loss and tax credits, are allocated to the fund investor and our subsidiary as specified in the agreements.

Generally, our subsidiary has the option to acquire the fund investor's interest in the fund for an amount based on the market value of the fund or the formula specified in the agreements.

Upon the sale or liquidation of a fund, distributions would occur in the order and priority specified in the agreements.

Pursuant to management services, maintenance and warranty arrangements, we have been contracted to provide services to the funds, such as operations and maintenance support, accounting, lease servicing and performance reporting. In some instances, we have guaranteed payments to the fund investors as specified in the agreements. A fund's creditors have no recourse to our general credit or to that of other funds. None of the assets of the funds had been pledged as collateral for their obligations.

The aggregate carrying values of the VIEs' assets and liabilities, after elimination of any intercompany transactions and balances, in the consolidated balance sheets were as follows (in millions):

	March 31, 2021	December 31, 2020
Assets		
Current assets		
Cash and cash equivalents	\$ 78	\$ 87
Accounts receivable, net	35	28
Prepaid expenses and other current assets	124	105
Total current assets	237	220
Solar energy systems, net	4,709	4,749
Other non-current assets	197	182
Total assets	<u>\$ 5,143</u>	<u>\$ 5,151</u>
Liabilities		
Current liabilities		
Accrued liabilities and other	\$ 61	\$ 63
Deferred revenue	11	11
Customer deposits	16	14
Current portion of debt and finance leases	957	797
Total current liabilities	1,045	885
Deferred revenue, net of current portion	169	168
Debt and finance leases, net of current portion	2,062	1,346
Other long-term liabilities	17	19
Total liabilities	<u>\$ 3,293</u>	<u>\$ 2,418</u>

Note 14 – Segment Reporting and Information about Geographic Areas

We have two operating and reportable segments: (i) automotive and (ii) energy generation and storage. The automotive segment includes the design, development, manufacturing, sales, and leasing of electric vehicles as well as sales of automotive regulatory credits. Additionally, the automotive segment is also comprised of services and other, which includes non-warranty after-sales vehicle services, sales of used vehicles, retail merchandise, sales by our acquired subsidiaries to third party customers, and vehicle insurance revenue. The energy generation and storage segment includes the design, manufacture, installation, sales, and leasing of solar energy generation and energy storage products and related services and sales of solar energy systems incentives. Our CODM does not evaluate operating segments using asset or liability information. The following table presents revenues and gross profit by reportable segment (in millions):

	Three Months Ended March 31, 2021	2020
Automotive segment		
Revenues	\$ 9,895	\$ 5,692
Gross profit	\$ 2,316	\$ 1,223
Energy generation and storage segment		
Revenues	\$ 494	\$ 293
Gross profit	\$ (101)	\$ 11

The following table presents revenues by geographic area based on the sales location of our products (in millions):

	Three Months Ended March 31, 2021	2020
United States	\$ 4,424	\$ 2,768
China	3,043	900
Other	2,922	2,317
Total	<u>\$ 10,389</u>	<u>\$ 5,985</u>

The following table presents long-lived assets by geographic area (in millions):

	March 31, 2021	December 31, 2020
United States	\$ 16,650	\$ 15,989
International	3,151	2,737
Total	<u>\$ 19,801</u>	<u>\$ 18,726</u>

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with the consolidated financial statements and the related notes included elsewhere in this Quarterly Report on Form 10-Q.

Overview

Our mission is to accelerate the world's transition to sustainable energy. We design, develop, manufacture, lease and sell high-performance fully electric vehicles, solar energy generation systems and energy storage products. We also offer maintenance, installation, operation, financial and other services related to our products.

In 2021, we have produced 180,338 vehicles and delivered 184,877 vehicles through the first quarter. We are currently focused on increasing vehicle production and capacity, improving and developing and battery technologies, increasing the affordability and efficiency of our vehicles, expanding our global infrastructure and introducing our next vehicles.

In 2021, we have deployed 445 GWh of energy storage products and 92 megawatts of solar energy systems through the first quarter. We are currently focused on ramping production of energy storage products, improving our Solar Roof installation capability and efficiency and increasing market share of retrofit solar energy systems.

During the three months ended March 31, 2021, we recognized total revenues of \$10.39 billion, representing an increase of \$4.40 billion over the three months ended March 31, 2020. We continue to ramp production, build new manufacturing capacity and expand our operations to enable increased deliveries and deployments of our products and further revenue growth.

During the three months ended March 31, 2021, our net income attributable to common stockholders was \$438 million, representing a favorable change of \$422 million over the three months ended March 31, 2020. We continue to focus on operational efficiencies, while we have seen an acceleration of non-cash stock-based compensation expense due to a rapid increase in our market capitalization and updates to our business outlook.

We ended the first quarter of 2021 with \$17.14 billion in cash and cash equivalents, representing a decrease of \$2.24 billion from the end of 2020. Our cash flows provided by operating activities during the three month period ended March 31, 2021 was \$1.64 billion, representing a favorable change of \$2.08 billion compared to our cash flows used in operating activities during the period ended March 31, 2020 of \$440 million, and capital expenditures amounted to \$1.35 billion during the three month period ended March 31, 2021, compared to \$455 million during the same period ended March 31, 2020. Sustained growth has allowed our business to generally fund itself, but we will continue a number of capital-intensive projects in upcoming periods.

Management Opportunities, Challenges and Risks*Impact of COVID-19 Pandemic*

Beginning in the first quarter of 2021, there has been a trend in many parts of the world of increasing availability and administration of vaccines against COVID-19, as well as an easing of restrictions on social, business, travel and government activities and functions. On the other hand, infection rates and regulations continue to fluctuate in various regions and there are ongoing global impacts resulting from the pandemic, including challenges and increases in costs for logistics and supply chains, such as increased port congestion, intermittent supplier delays and a shortfall of microchip supply. We have also previously been affected by temporary manufacturing closures, employment and compensation adjustments, and impediments to administrative activities supporting our product deliveries and deployments.

Ultimately, we cannot predict the duration of the COVID-19 pandemic. We will continue to monitor macroeconomic conditions to remain flexible and to optimize and evolve our business as appropriate, and we will have to accurately project demand and infrastructure requirements globally and deploy our production, workforce and other resources accordingly.

Automotive—Production

The following is a summary of the status of production of each of our announced vehicle models in production and under development, as of the date of this Quarterly Report on Form 10-Q:

Production Location	Vehicle Model(s)	Production Status
Fremont Factory	Model S / Model X	Active
	Model 3 / Model Y	Active
Gigafactory Shanghai	Model 3 / Model Y	Active
Gigafactory Berlin	Model Y	Constructing manufacturing facilities
Gigafactory Texas	Model Y	Constructing manufacturing facilities
TBD	Cybertruck	In development
	Tesla Semi	In development
	Tesla Roadster	In development

We installed and tested the manufacturing equipment for our new versions of Model S and Model X in the first quarter of 2021 and we are in the early stages of ramping production. We are focused on ramping these models and Model Y to at least their installed production capacities. We have also worked to increase localization at Gigafactory Shanghai by introducing drive unit manufacturing and Model Y one-piece casting there. The next phase of production growth will depend on the construction of Gigafactory Berlin and Gigafactory Texas, each of which is progressing as planned for production and deliveries beginning in late 2021, and where we will also add to our available sources of battery cell supply by manufacturing our own cells that we are developing to have high-volume output, lower capital and production costs and longer range. Consistent with our approach of innovating at new factories, we expect to pioneer there the mass production of these cells and our unique structural battery pack concept. Our goals are to improve vehicle performance, decrease production costs and increase affordability.

However, these plans are subject to uncertainties inherent in establishing and ramping manufacturing operations, which may be exacerbated by the number of concurrent international projects and any future impact from events outside of our control such as the COVID-19 pandemic and any industry-wide component constraints. Moreover, we must meet ambitious technological targets with our plans for battery cells as well as for iterative manufacturing and design improvements for our vehicles with each new factory.

Automotive—Demand and Sales

Our cost reduction efforts and additional localized procurement and manufacturing are key to our vehicles' affordability, and for example have allowed us to competitively price our vehicles in China. In addition to opening new factories in 2021, we will also continue to generate demand and brand awareness by improving our vehicles' performance and functionality, including Autopilot, FSD and software features, and introducing anticipated future vehicles. Moreover, we expect to benefit from ongoing electrification of the automotive sector and increasing environmental awareness.

However, we operate in a cyclical industry that is sensitive to trade, environmental and political uncertainty, all of which may also be compounded by any future global impact from the COVID-19 pandemic. Moreover, as additional competitors enter the marketplace and help bring the world closer to sustainable transportation, we will have to continue to execute well to maintain our momentum.

Automotive—Deliveries and Customer Infrastructure

As our deliveries increase, we must work constantly to prevent our vehicle delivery capability from becoming a bottleneck on our total deliveries. Increasing the exports of vehicles manufactured at Gigafactory Shanghai has been effective in mitigating the strain on our deliveries, and we expect to benefit further from situating additional factories closer to local markets. In any case, as we expand, we will have to continue to increase and staff our delivery, servicing and charging infrastructure, maintain our vehicle reliability and optimize our Supercharger locations to ensure cost-effectiveness and customer satisfaction. In particular, we remain focused on increasing the capability and efficiency of our servicing operations.

Energy Generation and Storage Demand, Production and Deployment

The long-term success of this business is dependent upon increasing margins through greater volumes. We continue to increase the production of our energy storage products to meet high levels of demand. For Powerwall, better availability and growing grid stability concerns drive higher interest, and we are emphasizing cross-selling with our residential solar energy products. We remain committed to increasing our retrofit solar energy business by offering a low-cost and simplified online ordering experience. In addition, we continue to improve our installation capabilities for Solar Roof by on-boarding and training a large number of installers and reducing the installation time dramatically. As these product lines grow, we will have to maintain adequate battery cell supply for our energy storage products and hire additional personnel, particularly skilled electricians to support the ramp of Solar Roof.

Cash Flow and Capital Expenditure Trends

Our capital expenditures are typically difficult to project beyond the short term given the number and breadth of our core projects at any given time, and may further be impacted by uncertainties in future global market conditions. We are simultaneously ramping new products in the new Model S and Model X, Model Y and Solar Roof, constructing or ramping manufacturing facilities on three continents and piloting the development and manufacture of new battery cell technologies, and the pace of our capital spend may vary depending on overall priority among projects, the pace at which we meet milestones, production adjustments to and among our various products, increased capital efficiencies and the addition of new projects. Owing and subject to the foregoing as well as the pipeline of announced projects under development and all other continuing infrastructure growth, we currently expect our capital expenditures to be \$4.50 to \$6.00 billion in 2021 and each of the next two fiscal years.

Our business has recently been consistently generating cash flow from operations in excess of our level of capital spend, and with better working capital management resulting in shorter days sales outstanding than days payable outstanding, our sales growth is also facilitating positive cash generation. On the other hand, we are likely to see heightened levels of capital expenditures during certain periods depending on the specific pace of our capital-intensive projects. Moreover, as our stock price has significantly increased recently, we have seen higher levels of early conversions of “in-the-money” convertible senior notes, which obligates us to deliver cash and/or shares pursuant to the terms of those notes. Overall, we expect our ability to be self-funding to continue as long as macroeconomic factors support current trends in our sales.

Operating Expense Trends

As long as we see expanding sales, and excluding the potential impact of non-cash stock compensation expense attributable to the 2018 CEO Performance Award and impairment charges on certain assets as explained below, we generally expect operating expenses relative to revenues to decrease as we additionally increase operational efficiency and process automation.

In March 2018, our stockholders approved a performance-based stock option award to our CEO (the “2018 CEO Performance Award”), consisting of 12 vesting tranches contingent on the achievement of specified market capitalization and operational milestones. We incur non-cash stock-based compensation expense for each tranche only after the related operational milestone initially becomes probable of being achieved based on a subjective assessment of our future financial performance, and if this happens following the grant date, we record at such time a cumulative catch-up expense that may be significant based on the length of time elapsed from the grant date. Moreover, the remaining expense for that tranche is ratably recorded over the period remaining until the later of (i) the expected achievement of the relevant operational milestone (if it has not yet been achieved) and (ii) the expected achievement of the related market capitalization milestone (if it has not yet been achieved). Upon the achievement of both milestones related to a tranche, all remaining associated expense is recognized immediately. Because the market capitalization milestone achievements were generally expected to occur later than the related expected operational milestone achievements, the achievement of the former earlier than expected may increase the magnitude of any catch-up expense and/or accelerate the rate at which the remaining expense is recognized. Since 2020, several operational milestones have become probable and/or have been achieved and all market capitalization milestones except one have been achieved, resulting in the recognition or acceleration of related expense earlier than anticipated and within a relatively short period of time. See Note 11, *Equity Incentive Plans—2018 CEO Performance Award*, to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for further details regarding the stock-based compensation relating to the 2018 CEO Performance Award.

In the first quarter of 2021, we invested an aggregate \$1.50 billion in bitcoin and began accepting bitcoin as a form of payment for certain of our products in specified regions, subject to applicable laws. Digital assets are considered indefinite-lived intangible assets under applicable accounting rules. Accordingly, any decrease in their fair values below our carrying values for such assets at any time subsequent to their acquisition will require us to recognize impairment charges, whereas we may make no upward revisions for any market price increases until a sale. As we generally intend to hold these assets long-term, these charges may negatively impact our profitability in the periods in which such impairments occur even if the overall market values of these assets increase. For example, in the first quarter of 2021, we recorded approximately \$27 million of impairment losses resulting from changes to the carrying value of our bitcoin and gains of \$128 million on certain sales of bitcoin by us.

Critical Accounting Policies and Estimates

The consolidated financial statements are prepared in accordance with accounting principles generally accepted in the U.S. (“GAAP”). The preparation of the consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, costs and expenses and related disclosures. We base our estimates on historical experience, as appropriate, and on various other assumptions that we believe to be reasonable under the circumstances. Changes in the accounting estimates are reasonably likely to occur from period to period. Accordingly, actual results could differ significantly from the estimates made by our management. We evaluate our estimates and assumptions on an ongoing basis. To the extent that there are material differences between these estimates and actual results, our future financial statement presentation, financial condition, results of operations and cash flows may be affected.

Due to the COVID-19 pandemic, there has been uncertainty and disruption in the global economy and financial markets. The estimates used for, but not limited to, determining significant economic incentive for resale value guarantee arrangements, sales return reserves, the collectability of accounts receivable, inventory valuation, fair value of long-lived assets, goodwill, fair value of financial instruments, fair value and residual value of operating lease vehicles and solar energy systems subject to leases could be impacted. We have assessed the impact and are not aware of any specific events or circumstances that required an update to our estimates and assumptions or materially affected the carrying value of our assets or liabilities as of the date of issuance of this Quarterly Report on Form 10-Q. These estimates may change as new events occur and additional information is obtained. Actual results could differ materially from these estimates under different assumptions or conditions.

For a description of our critical accounting policies and estimates, refer to Part II, Item 7, Critical Accounting Policies and Estimates in our Annual Report on Form 10-K for the year ended December 31, 2020. There have been no material changes to our critical accounting policies and estimates since our Annual Report on Form 10-K for the year ended December 31, 2020.

Recent Accounting Pronouncements

See Note 2, *Summary of Significant Accounting Policies*, to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q.

Results of Operations

Effects of COVID-19

Beginning in the first quarter of 2021, there has been a trend in many parts of the world of increasing availability and administration of vaccines against COVID-19, as well as an easing of restrictions on social, business, travel and government activities and functions. On the other hand, infection rates and regulations continue to fluctuate in various regions and there are ongoing global impacts resulting from the pandemic, including challenges and increases in costs for logistics and supply chain issues, such as a shortfall of microchip supply.

During 2020, we were also affected by temporary manufacturing closures, employment and compensation adjustments, and impediments to administrative activities supporting our product deliveries and deployments. Our temporary suspension at our factories resulted in idle capacity charges as we still incurred fixed costs such as depreciation, certain payroll related expenses and property taxes. As part of our response strategy to the business disruptions and uncertainty around macroeconomic conditions caused by the COVID-19 pandemic, we instituted cost reduction initiatives across our business globally to be commensurate to the scope of our operations while they were scaled back in the first half of 2020. Additionally, we suspended non-critical operating spend and opportunistically renegotiated supplier and vendor arrangements. As part of various governmental responses to the pandemic granted to companies globally, we received certain payroll related benefits which helped to reduce the impact of the COVID-19 pandemic on our financial results. Such payroll related benefits related to our direct headcount have been primarily netted against our disclosed idle capacity charges and they marginally reduced our operating expenses. The impact of the idle capacity charges incurred during the first half of 2020 were almost entirely offset by our cost savings initiatives and payroll related benefits.

Revenues

	Three Months Ended March 31,		Change	
	2021	2020	\$	%
(Dollars in millions)				
Automotive sales	\$ 8,705	\$ 4,893	\$ 3,812	78 %
Automotive leasing	297	239	58	24 %
Total automotive revenues	9,002	5,132	3,870	75 %
Services and other	893	560	333	59 %
Total automotive & services and other segment revenue	9,895	5,692	4,203	74 %
Energy generation and storage segment revenue	494	293	201	69 %
Total revenues	\$ 10,389	\$ 5,985	\$ 4,404	74 %

Automotive & Services and Other Segment

Automotive sales revenue includes revenues related to cash deliveries of new Model S, Model X, Model 3 and Model Y vehicles, including access to our Supercharger network, internet connectivity, FSD features and over-the-air software updates, as well as sales of regulatory credits to other automotive manufacturers. Cash deliveries are vehicles that are not subject to lease accounting. Our revenue from regulatory credits fluctuates depending on when a contract is executed with a buyer and when the credits are delivered.

Automotive leasing revenue includes the amortization of revenue for vehicles under direct operating lease agreements as well as those sold with resale value guarantees accounted for as operating leases under lease accounting. We began offering direct leasing for Model Y vehicles in the third quarter of 2020. Additionally, automotive leasing revenue includes direct sales-type leasing programs where we recognize all revenue associated with the sales-type lease upon delivery to the customer, which we introduced in volume during the third quarter of 2020.

Services and other revenue consists of non-warranty after-sales vehicle services, sales of used vehicles, retail merchandise, sales by our acquired subsidiaries to third party customers and vehicle insurance revenue.

Automotive sales revenue increased \$3.81 billion, or 78%, in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020, primarily due to an increase of 96,464 Model 3 and Model Y cash deliveries year over year from production ramping at both Gigafactory Shanghai and the Fremont Factory. There was also an increase of \$164 million from additional sales of regulatory credits to \$518 million in the three months ended March 31, 2021. The increases in automotive sales revenue were partially offset by a decrease from 8,380 fewer Model S and Model X cash deliveries at a slightly lower combined average selling price in the three months ended March 31, 2021 compared to the prior period as we phase out the inventory of older models to get ready for the introduction of the updated versions. Additionally, there was a decrease in the combined average selling price of Model 3 and Model Y primarily due to a higher proportion of Standard Range variants in our sales mix compared to the prior period.

Automotive leasing revenue increased \$58 million, or 24%, in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020, primarily due to an increase in cumulative vehicles under our direct operating lease program and the introduction of direct sales-type leasing programs which we began offering in volume during the third quarter of 2020 where we recognize all revenue associated with the sales-type lease upon delivery to the customer. These increases were partially offset by the decreases in automotive leasing revenue associated with our resale value guarantee leasing programs accounted for as operating leases as those portfolios have declined.

Services and other revenue increased \$333 million, or 59%, in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020, primarily due to increases in used vehicle revenue driven by an increase in trade-ins, non-warranty maintenance services revenue as our fleet continues to grow and retail merchandise revenue.

Energy Generation and Storage Segment

Energy generation and storage revenue includes sales and leasing of solar energy generation and energy storage products, services related to such products and sales of solar energy systems incentives.

Energy generation and storage revenue increased by \$201 million, or 69%, in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020, primarily due to increases in deployments of solar cash and loan jobs, Powerwall and Megapack, partially offset by reduced average selling prices on our solar cash and loan jobs as a result of our low cost solar strategy introduced mid-2020.

Cost of Revenues and Gross Margin

(Dollars in millions)	Three Months Ended March 31,		Change	
	2021	2020	\$	%
Cost of revenues				
Automotive sales	\$ 6,457	\$ 3,699	\$ 2,758	75 %
Automotive leasing	160	122	38	31 %
Total automotive cost of revenues	6,617	3,821	2,796	73 %
Services and other	962	648	314	48 %
Total automotive & services and other segment cost of revenues	7,579	4,469	3,110	70 %
Energy generation and storage segment	595	282	313	111 %
Total cost of revenues	\$ 8,174	\$ 4,751	\$ 3,423	72 %
Gross profit total automotive	\$ 2,385	\$ 1,311		
Gross margin total automotive	26 %	26 %		
Gross profit total automotive & services and other segment	\$ 2,316	\$ 1,223		
Gross margin total automotive & services and other segment	23 %	21 %		
Gross profit energy generation and storage segment	\$ (101)	\$ 11		
Gross margin energy generation and storage segment	-20 %	4 %		
Total gross profit	\$ 2,215	\$ 1,234		
Total gross margin	21 %	21 %		

Automotive & Services and Other Segment

Cost of automotive sales revenue includes direct parts, material and labor costs, manufacturing overhead, including depreciation costs of tooling and machinery, shipping and logistic costs, vehicle connectivity costs, allocations of electricity and infrastructure costs related to our Supercharger network and reserves for estimated warranty expenses. Cost of automotive sales revenues also includes adjustments to warranty expense and charges to write down the carrying value of our inventory when it exceeds its estimated net realizable value and to provide for obsolete and on-hand inventory in excess of forecasted demand.

Cost of automotive leasing revenue includes the amortization of operating lease vehicles over the lease term, cost of goods sold associated with direct sales-type leases which were introduced in volume in the third quarter of 2020, as well as warranty expenses related to leased vehicles. Cost of automotive leasing revenue also includes vehicle connectivity costs and allocations of electricity and infrastructure costs related to our Supercharger network for vehicles under our leasing programs.

Cost of services and other revenue includes costs associated with providing non-warranty after-sales services, costs to acquire and certify used vehicles, costs for retail merchandise, and costs to provide vehicle insurance. Cost of services and other revenue also includes direct parts, material and labor costs and manufacturing overhead associated with the sales by our acquired subsidiaries to third party customers.

Cost of automotive sales revenue increased \$2.76 billion, or 75%, in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020, primarily due to an increase of 96,464 Model 3 and Model Y cash deliveries, partially offset by a decrease in combined average Model 3 and Model Y costs per unit due to lower material, manufacturing, freight and duty costs from localized procurement and manufacturing in China, a higher sales mix of Standard Range trims and reductions in Model Y average costs per unit as compared to the prior period due to temporary under-utilization of manufacturing capacity at lower production volumes during our production ramp in the first half of 2020. Additionally, there was a decrease of 8,380 Model S and Model X cash deliveries in the three months ended March 31, 2021 compared to the prior period.

Cost of automotive leasing revenue increased \$38 million, or 31%, in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020, primarily due to an increase in cumulative vehicles under our direct operating lease program and the introduction of direct sales-type leasing programs which we began offering in volume during the third quarter of 2020 where we recognize all cost of revenue associated with the sales-type lease upon delivery to the customer. These increases were partially offset by the decreases in cost of automotive lease revenue associated with our resale value guarantee leasing programs which are accounted for as operating leases as those portfolios have declined.

Cost of services and other revenue increased \$314 million, or 48%, in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020, primarily due to increases in used vehicle cost of revenue driven by an increase in trade-ins, costs to support our increase in non-warranty maintenance services revenue and costs of retail merchandise as our sales have increased.

Gross margin for total automotive remained relatively consistent at 26% in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020. There were increases from improvements of Model Y and Model 3 gross margins primarily from lower material, manufacturing, freight and duty costs from localized procurement and manufacturing in China and reductions in Model Y average costs per unit as compared to the prior period due to temporary under-utilization of manufacturing capacity at lower production volumes during our production ramp in the first half of 2020. Additionally, there was a positive impact from an increase of \$164 million in sales of regulatory credits. These increases were partially offset by a decrease in the combined average selling price of Model 3 and Model Y due to a higher proportion of Standard Range variants in our sales mix compared to the prior period.

Gross margin for total automotive & services and other segment increased from 21% to 23% in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020, primarily due to the automotive gross margin impacts discussed above and an improvement in our services and other gross margin. Additionally, there was a lower proportion of services and other, which operated at a lower gross margin than our automotive business, within the segment in the three months ended March 31, 2021 as compared to the prior period.

Energy Generation and Storage Segment

Cost of energy generation and storage revenue includes direct and indirect material and labor costs, warehouse rent, freight, warranty expense, other overhead costs and amortization of certain acquired intangible assets. Cost of energy generation and storage revenue also includes charges to write down the carrying value of our inventory when it exceeds its estimated net realizable value and to provide for obsolete and on-hand inventory in excess of forecasted demand. In agreements for solar energy system and PPAs where we are the lessor, the cost of revenue is primarily comprised of depreciation of the cost of leased solar energy systems, maintenance costs associated with those systems and amortization of any initial direct costs.

Cost of energy generation and storage revenue increased by \$313 million, or 111%, in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020, primarily due to increases in deployments of solar cash and loan jobs, Solar Roof, Powerwall and Megapack and increased service maintenance costs on solar energy systems where we are the lessor, partially offset by reductions in average costs per unit of Solar Roof and solar cash and loan jobs from improved overhead utilization as deployments increased. Although our average costs per unit of Solar Roof improved compared to the prior period, they still remain significant and contribute disproportionately to our cost of energy generation and storage revenue.

Gross margin for energy generation and storage decreased from 4% to -20% in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020 primarily due to a higher proportion of Solar Roof in our overall energy business which operated at lower gross margins as a result of temporary manufacturing underutilization during product ramp, increased service maintenance costs on solar energy systems where we are the lessor and lower gross margins in our energy storage business as we are ramping Megapack.

Research and Development Expense

	Three Months Ended March 31,		Change	
	2021	2020	\$	%
(Dollars in millions)				
Research and development	\$ 666	\$ 324	\$ 342	106 %
As a percentage of revenues	6 %	5 %		

Research and development (“R&D”) expenses consist primarily of personnel costs for our teams in engineering and research, manufacturing engineering and manufacturing test organizations, prototyping expense, contract and professional services and amortized equipment expense.

R&D expenses increased \$342 million, or 106%, in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020. The increase was primarily due to an \$147 million increase in employee and labor related expenses due to an increase in headcount and increased payroll taxes related to appreciation of our stock price, a \$122 million increase in R&D expensed materials and outside services and a \$60 million increase in stock-based compensation expense. These increases were to support our expanding product roadmap such as the new versions of Model S and Model X and technologies including our proprietary battery cells.

R&D expenses as a percentage of revenue increased from 5% to 6% in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020. The increase is primarily due to the increase in our R&D expenses as detailed above, partially offset by an increase in total revenues from expanding sales.

Selling, General and Administrative Expense

	Three Months Ended March 31,		Change	
	2021	2020	\$	%
(Dollars in millions)				
Selling, general and administrative	\$ 1,056	\$ 627	\$ 429	68 %
As a percentage of revenues	10 %	10 %		

Selling, general and administrative (“SG&A”) expenses generally consist of personnel and facilities costs related to our stores, marketing, sales, executive, finance, human resources, information technology and legal organizations, as well as fees for professional and contract services and litigation settlements.

SG&A expenses increased \$429 million, or 68%, in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020. The increase is primarily due to an increase of \$273 million in stock-based compensation expense, of which \$233 million was attributable to the 2018 CEO Performance Award. We recorded stock-based compensation expense of \$299 million in the three months ended March 31, 2021 for the 2018 CEO Performance Award compared to \$66 million in the prior period. The increase in expense under the 2018 CEO Performance Award was due to the catch-up expense of \$116 million recognized in the three months ended March 31, 2021 when the operational milestone of annualized revenue of \$55.0 billion became probable of being achieved as well as the acceleration of the expense related to the fifth and sixth tranches as their market capitalization milestones were achieved earlier than originally forecasted due to rapid appreciation of our stock price since 2020 (see Note 11, *Equity Incentive Plans*, to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q). Additionally, there was an increase of \$125 million in employee and labor related expenses from increased headcount and increased payroll taxes related to appreciation of our stock price.

SG&A expenses as a percentage of revenue remained relatively consistent at 10% in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020. There was a favorable impact from the increase in total revenue from expanding sales, partially offset by an increase in our SG&A expenses as detailed above.

Restructuring and Other Expense

	Three Months Ended March 31,		Change	
	2021	2020	\$	%
(Dollars in millions)				
Restructuring and other	\$ (101)	\$ —	\$ (101)	Not meaningful
As a percentage of revenues	-1 %	0 %		

During the three months ended March 31, 2021, we realized gains of \$128 million through sales of bitcoin and also recorded \$27 million of impairment losses. See Note 2, *Summary of Significant Accounting Policies*, and Note 3, *Digital Assets, Net*, to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for further details.

Interest Expense

	Three Months Ended March 31,		Change	
	2021	2020	\$	%
(Dollars in millions)				
Interest expense	\$ (99)	\$ (169)	\$ 70	-41 %
As a percentage of revenues	1 %	3 %		

Interest expense decreased by \$70 million, or 41%, in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020, primarily due to the adoption of ASU 2020-06, *Accounting for Convertible Instruments and Contracts in an Entity's Own Equity*, on January 1, 2021, whereby we have de-recognized the remaining debt discounts on the 2022 Notes and 2024 Notes and therefore no longer recognize any amortization of debt discounts as interest expense, as well as the continued reduction in our overall debt balance. See Note 2, *Summary of Significant Accounting Policies*, to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for further details.

Other Income (Expense), Net

	Three Months Ended March 31,		Change	
	2021	2020	\$	%
(Dollars in millions)				
Other income (expense), net	\$ 28	\$ (54)	\$ 82	Not meaningful
As a percentage of revenues	0 %	1 %		

Other income (expense), net, consists primarily of foreign exchange gains and losses related to our foreign currency-denominated monetary assets and liabilities and changes in the fair values of our fixed-for-floating interest rate swaps. We expect our foreign exchange gains and losses will vary depending upon movements in the underlying exchange rates.

Other income (expense), net, changed favorably by \$82 million in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020, primarily due to a \$60 million favorable change in the mark-to-market remeasurement of our interest rate swaps and favorable fluctuations in foreign currency exchange rates.

Provision for Income Taxes

	Three Months Ended March 31,		Change	
	2021	2020	\$	%
(Dollars in millions)				
Provision for income taxes	\$ 69	\$ 2	\$ 67	3350 %
Effective tax rate	13 %	3 %		

Our provision for income taxes is \$69 million with pre-tax income of \$533 million for the three months ended March 31, 2021. The provision for income taxes increased by \$67 million, compared to \$2 million provision for income taxes with pre-tax income of \$70 million for the three months ended March 31, 2020. The increase was primarily due to the substantial increases in taxable profits in our foreign jurisdictions year-over-year.

Our effective tax rate increased from 3% to 13% in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020, primarily due to substantial pre-tax income in the three months ended March 31, 2021 as compared to a small pre-tax income for the three months ended March 31, 2020.

See Note 2, *Summary of Significant Accounting Policies*, to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for further details.

Net Income Attributable to Noncontrolling Interests and Redeemable Noncontrolling Interests

(Dollars in millions)	Three Months Ended March 31,		Change	
	2021	2020	\$	%
Net income attributable to noncontrolling interests and redeemable noncontrolling interests in subsidiaries	\$ 26	\$ 52	\$ (26)	-50%

Our net income attributable to noncontrolling interests and redeemable noncontrolling interests was related to financing fund arrangements.

Net income attributable to noncontrolling interests and redeemable noncontrolling interests decreased by \$26 million, or 50%, in the three months ended March 31, 2021 as compared to the three months ended March 31, 2020. The change was primarily due to lower activities from new financing fund arrangements offset by a decrease in distributions to financing fund investors.

Liquidity and Capital Resources

We expect to continue to generate net positive operating cash flow as we have done in the last three fiscal years. The cash we generate from our core operations enables us to fund ongoing operations and production, our research and development projects for new products and technologies including our proprietary battery cells, additional manufacturing ramps at existing manufacturing facilities such as the Fremont Factory, Gigafactory Nevada, Gigafactory Shanghai and Gigafactory New York, the construction of Gigafactory Berlin and Gigafactory Texas, and the continued expansion of our retail and service locations, body shops, Mobile Service fleet, Supercharger network and energy product installation capabilities.

In addition, because a large portion of our future expenditures will be to fund our growth, we expect that if needed we will be able to adjust our capital and operating expenditures by operating segment. For example, if our near-term manufacturing operations decrease in scale or ramp more slowly than expected, including due to global economic or business conditions, we may choose to correspondingly slow the pace of our capital expenditures. Finally, we continually evaluate our cash needs and may decide it is best to raise additional capital or seek alternative financing sources to fund the rapid growth of our business, including through drawdowns on existing or new debt facilities or financing funds. Conversely, we may also from time to time determine that it is in our best interests to voluntarily repay certain indebtedness early.

Accordingly, we believe that our current sources of funds will provide us with adequate liquidity during the 12-month period following March 31, 2021, including to pay down near-term debt obligations, as well as in the long-term.

See the sections below for more details regarding the material requirements for cash in our business and our sources of liquidity to meet such needs.

Material Cash Requirements

From time to time in the ordinary course of business, we enter into agreements with vendors for the purchase of components and raw materials to be used in the manufacture of our products. However, due to contractual terms, variability in the precise growth curves of our development and production ramps, and opportunities to renegotiate pricing, we generally do not have binding and enforceable purchase orders under such contracts beyond the short term, and the timing and magnitude of purchase orders beyond such period is difficult to accurately project.

As discussed in and subject to the considerations referenced in Part II, Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations—Management Opportunities, Challenges and Risks—Cash Flow and Capital Expenditure Trends* in this Quarterly Report on Form 10-Q, we currently expect our capital expenditures to support our projects globally to be \$4.50 to \$6.00 billion in 2021 and in each of the next two fiscal years. In connection with our operations at Gigafactory Buffalo, we have an agreement to spend or incur \$5.0 billion in combined capital, operational expenses, costs of goods sold and other costs in the State of New York through December 31, 2029 (pursuant to a deferral of our required timelines to meet such obligations that was granted in April 2021 subject only to memorialization in writing by us and the SUNY Foundation). We also have an operating lease arrangement with the local government of Shanghai pursuant to which we are required to spend RMB 14.08 billion in capital expenditures at Gigafactory Shanghai by the end of 2023. For details regarding these obligations, refer to Note 12, *Commitments and Contingencies*, to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q.

As of March 31, 2021, we and our subsidiaries had outstanding \$9.52 billion in aggregate principal amount of indebtedness, of which \$1.43 billion is scheduled to become due in the succeeding 12 months. For details regarding our indebtedness, refer to Note 10, *Debt*, to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q.

Sources and Conditions of Liquidity

Our sources to fund our material cash requirements are predominantly from our deliveries of vehicles, sales and installations of our energy storage products and solar energy systems, proceeds from debt facilities, proceeds from financing funds and proceeds from equity offerings.

As of March 31, 2021, we had \$17.14 billion of cash and cash equivalents. Balances held in foreign currencies had a U.S. dollar equivalent of \$7.79 billion and consisted primarily of euros, Chinese yuan and Canadian dollars. In addition, we had \$2.15 billion of unused committed amounts under our credit facilities and financing funds as of March 31, 2021, net of amounts formerly available under the Fixed Asset Facility that was paid off and terminated in April 2021. Certain of such unused committed amounts are subject to satisfying specified conditions prior to draw-down (such as pledging to our lenders sufficient amounts of qualified receivables, inventories, leased vehicles and our interests in those leases, solar energy systems and the associated customer contracts, our interests in financing funds or various other assets; and contributing or selling qualified solar energy systems and the associated customer contracts or qualified leased vehicles and our interests in those leases into the financing funds). For details regarding our indebtedness and financing funds, refer to Note 10, *Debt*, and Note 13, *Variable Interest Entity Arrangements* to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q.

In the first quarter of 2021, we invested an aggregate \$1.50 billion in bitcoin and began accepting bitcoin as a form of payment for our products in certain regions, subject to applicable laws. In the first quarter of 2021, we also sold an aggregate \$272 million in bitcoin. Net of such sales, the fair market value of our bitcoin holdings as of March 31, 2021 was \$2.48 billion. Based on our trading activity to date, we believe bitcoin is highly liquid, although we generally intend to hold our bitcoin long-term regardless of the manner of acquisition. However, digital assets may be subject to volatile market prices, which may be unfavorable at the times when we may want or need to liquidate them.

Summary of Cash Flows

	Three Months Ended March 31,	
	2021	2020
(Dollars in millions)		
Net cash provided by (used in) operating activities	\$ 1,641	\$ (440)
Net cash used in investing activities	\$ (2,582)	\$ (480)
Net cash (used in) provided by financing activities	\$ (1,016)	\$ 2,708

Cash Flows from Operating Activities

Our cash flows from operating activities are significantly affected by our cash investments to support the growth of our business in areas such as research and development and selling, general and administrative and working capital, especially inventory, which includes vehicles in transit. Our operating cash inflows include cash from vehicle sales, customer lease payments, customer deposits, cash from sales of regulatory credits and energy generation and storage products. These cash inflows are offset by our payments to suppliers for production materials and parts used in our manufacturing process, operating expenses, operating lease payments and interest payments on our financings.

Net cash from operating activities changed favorably by \$2.08 billion to net cash provided by operating activities of 1.64 billion during the three months ended March 31, 2021 from net cash used in operating activities of \$440 million during the three months ended March 31, 2020. This increase was primarily due to the decrease in net operating assets and liabilities of \$1.44 billion and the increase in net income excluding non-cash expenses and gains of \$747 million, partially offset by \$101 million of net gain on digital assets. The decrease in our net operating assets and liabilities was mainly driven by an increase in accounts payable and accrued liabilities in the three months ended March 31, 2021 as compared to a decrease in the three months ended March 31, 2020 from ramp up in production at Gigafactory Shanghai and the Fremont Factory and a smaller increase in inventory from buildup of finished goods from limited capacity to deliver or install our products at the end of the first quarter of 2020. The decrease in our net operating assets and liabilities was partially offset by a larger increase in operating lease vehicles as Model Y direct leasing was introduced in the third quarter of 2020 and an increase in other non-current assets in the three months ended March 31, 2021 as compared to a decrease in the same period in 2020.

Cash Flows from Investing Activities

Cash flows from investing activities and their variability across each period related primarily to capital expenditures, which were \$1.35 billion for the three months ended March 31, 2021, mainly for construction of Gigafactory Texas and Gigafactory Berlin and expansion of Gigafactory Shanghai and \$455 million for the three months ended March 31, 2020, mainly for Model Y production at the Fremont Factory and Gigafactory Shanghai construction. Additionally, net cash activities related to digital assets were \$1.23 billion in the three months ended March 31, 2021 from purchases of digital assets for \$1.50 billion and proceeds from sales of digital assets of \$272 million.

Cash Flows from Financing Activities

Net cash used in financing activities during the three months ended March 31, 2021 was \$1.02 billion, which consisted primarily of \$1.45 billion of cash repayments upon conversions of our convertible senior notes, \$294 million of repayments under our 2016 Warehouse Agreement, \$151 million repayment of Solar Term Loan upon maturity and \$101 million principal repayments of our finance leases. These cash outflows were partially offset by \$877 million of net borrowings from the Automotive Asset-backed Notes and \$183 million of proceeds from exercise of stock options and other stock issuances. See Note 10, *Debt* to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for further details regarding our debt obligations.

Net cash provided by financing activities during the three months ended March 31, 2020 was \$2.71 billion, which consisted primarily of \$2.31 billion from our February 2020 public offering of common stock, net of issuance costs, \$359 million of net borrowings under our vehicle lease-backed loan and security agreements (the "Warehouse Agreements"), \$292 million of net borrowings under the senior secured asset-based revolving credit agreement (the "Credit Agreement") and \$160 million of proceeds from exercise of stock options and other stock issuances. These cash inflows were partially offset by \$129 million of payments of the automotive asset-backed notes and \$100 million principal repayments of our finance leases.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**Foreign Currency Risk**

We transact business globally in multiple currencies and hence have foreign currency risks related to our revenue, costs of revenue, operating expenses and localized subsidiary debt denominated in currencies other than the U.S. dollar (primarily the Chinese yuan, euro, Canadian dollar and Swiss franc in relation to our current year operations). In general, we are a net receiver of currencies other than the U.S. dollar for our foreign subsidiaries. Accordingly, changes in exchange rates affect our revenue and other operating results as expressed in U.S. dollars as we do not typically hedge foreign currency risk.

We have also experienced, and will continue to experience, fluctuations in our net income (loss) as a result of gains (losses) on the settlement and the re-measurement of monetary assets and liabilities denominated in currencies that are not the local currency (primarily consisting of our intercompany and cash and cash equivalents balances). For the three months ended March 31, 2021, we recognized a net foreign currency gain of \$2 million in Other income (expense), net, with our largest re-measurement exposures from the Canadian dollar, euro and U.S. dollar as our subsidiaries' monetary assets and liabilities are denominated in various local currencies. For the three months ended March 31, 2020, we recognized a net foreign currency loss of \$19 million in Other income (expense), net, with our largest re-measurement exposures from the U.S. dollar, Australian dollar and South Korean won.

We considered the historical trends in foreign currency exchange rates and determined that it is reasonably possible that adverse changes in foreign currency exchange rates of 10% for all currencies could be experienced in the near-term. These changes were applied to our total monetary assets and liabilities denominated in currencies other than our local currencies at the balance sheet date to compute the impact these changes would have had on our net income (loss) before income taxes. These changes would have resulted in a loss of \$64 million at March 31, 2021 and \$8 million at December 31, 2020 assuming no foreign currency hedging.

Interest Rate Risk

We are exposed to interest rate risk on our borrowings that bear interest at floating rates. Pursuant to our risk management policies, in certain cases, we utilize derivative instruments to manage some of this risk. We do not enter into derivative instruments for trading or speculative purposes. A hypothetical 10% change in interest rates on our floating rate debt would have increased or decreased our interest expense for the three months ended March 31, 2021 and 2020 by \$1 million and \$1 million, respectively.

ITEM 4. CONTROLS AND PROCEDURES*Evaluation of Disclosure Controls and Procedures*

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). In designing and evaluating the disclosure controls and procedures, our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that our management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that, as of March 31, 2021, our disclosure controls and procedures were designed at a reasonable assurance level and were effective to provide reasonable assurance that the information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting that occurred during the quarter ended March 31, 2021, which has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

For a description of our material pending legal proceedings, please see Note 12, *Commitments and Contingencies*, to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q.

In addition, each of the matters below is being disclosed pursuant to Item 103 of Regulation S-K because it relates to environmental regulations and aggregate civil penalties that could potentially exceed \$1 million. We believe that any proceeding that is material to our business or financial condition is likely to have potential penalties far in excess of such amount.

The Bay Area Air Quality Management District (“BAAQMD”) has issued notices of violation to us relating to air permitting and related compliance for the Fremont Factory, but has not initiated formal proceedings. We have disputed certain of these allegations and have asserted that there has been no related adverse community or environmental impact. While we have not yet resolved this matter, we remain in close communication with BAAQMD with respect to it. We do not currently expect any material adverse impact on our business.

The German Umweltbundesamt has issued our subsidiary in Germany a notice and fine in the amount of 12 million euro alleging its non-compliance under applicable laws relating to market participation notifications and take-back obligations with respect to end-of-life battery products required thereunder. This is primarily relating to administrative requirements, but Tesla has continued to take back battery packs, and although we cannot predict the outcome of this matter, including the final amount of any penalties, we have filed our objection and it is not expected to have a material adverse impact on our business.

In April 2021, we received a notice from the Environmental Protection Agency (the “EPA”) alleging that Tesla failed to provide records demonstrating compliance with certain requirements under the applicable National Emission Standards for Hazardous Air Pollutants under the Clean Air Act of 1963, as amended, relating to Surface Coating of Automobiles and Light-Duty Trucks regulations. Tesla has responded to all information requests from the EPA and refutes the allegations. While the outcome of this matter cannot be determined at this time, it is not currently expected to have a material adverse impact on our business.

ITEM 1A. RISK FACTORS

You should carefully consider the risks described below together with the other information set forth in this report, which could materially affect our business, financial condition and future results. The risks described below are not the only risks facing our company. Risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition and operating results.

Risks Related to Our Ability to Grow Our Business

We may be impacted by macroeconomic conditions resulting from the global COVID-19 pandemic.

Since the first quarter of 2020, there has been a worldwide impact from the COVID-19 pandemic. Government regulations and shifting social behaviors have limited or closed non-essential transportation, government functions, business activities and person-to-person interactions. In some cases, the relaxation of such trends has been followed by actual or contemplated returns to stringent restrictions on gatherings or commerce, including in parts of the U.S. and a number of areas in Europe.

During 2020, we temporarily suspended operations at each of our manufacturing facilities worldwide, and certain of our suppliers also shut down operations temporarily or permanently. We instituted temporary employee furloughs and compensation reductions while our U.S. operations were scaled back. Temporary impediments to administrative activities supporting our operations also hampered our product deliveries and deployments.

Global trade conditions and consumer trends that originated during the pandemic continue to persist and may also have long-lasting adverse impact on us and our industries independently of the progress of the pandemic. For example, pandemic-related issues have exacerbated port congestion and intermittent supplier shutdowns and delays, resulting in additional expenses to expedite delivery of critical parts. Similarly, increased demand for personal electronics has created a shortfall of microchips, which has caused challenges in our supply chain and production. Sustaining our production trajectory will require the ongoing readiness and solvency of our suppliers and vendors, a stable and motivated production workforce and government cooperation, including for travel and visa allowances. The contingencies inherent in the construction of and ramp at new facilities such as Gigafactory Shanghai, Gigafactory Berlin and Gigafactory Texas may be exacerbated by these challenges.

We cannot predict the duration or direction of current global trends or their sustained impact. Ultimately, we continue to monitor macroeconomic conditions to remain flexible and to optimize and evolve our business as appropriate, and we will have to accurately project demand and infrastructure requirements globally and deploy our production, workforce and other resources accordingly. If we experience unfavorable global market conditions, or if we cannot or do not maintain operations at a scope that is commensurate with such conditions or are later required to or choose to suspend such operations again, our business, prospects, financial condition and operating results may be harmed.

We may experience delays in launching and ramping the production of our products and features, or we may be unable to control our manufacturing costs.

We have previously experienced and may in the future experience launch and production ramp delays for new products and features. For example, we encountered unanticipated supplier issues that led to delays during the initial ramp of Model X and experienced challenges with a supplier and with ramping full automation for certain of our initial Model 3 manufacturing processes. In addition, we may introduce in the future new or unique manufacturing processes and design features for our products. There is no guarantee that we will be able to successfully and timely introduce and scale such processes or features.

In particular, our future business depends in large part on increasing the production of mass-market vehicles including Model 3 and Model Y, which we are planning to achieve through multiple factories worldwide. We have relatively limited experience to date in manufacturing Model 3 and Model Y at high volumes and even less experience building and ramping vehicle production lines across multiple factories in different geographies. In order to be successful, we will need to implement, maintain and ramp efficient and cost-effective manufacturing capabilities, processes and supply chains and achieve the design tolerances, high quality and output rates we have planned at our manufacturing facilities in California, Nevada, Texas, China and Germany. We will also need to hire, train and compensate skilled employees to operate these facilities. Bottlenecks and other unexpected challenges such as those we experienced in the past may arise during our production ramps, and we must address them promptly while continuing to improve manufacturing processes and reducing costs. If we are not successful in achieving these goals, we could face delays in establishing and/or sustaining our Model 3 and Model Y ramps or be unable to meet our related cost and profitability targets.

We may also experience similar future delays in launching and/or ramping production of our energy storage products and Solar Roof; new product versions or variants such as the recently updated Model S and Model X; new vehicles such as Tesla Semi, Cybertruck and the new Tesla Roadster; and future features and services such as new Autopilot or FSD features and the autonomous

Tesla ride-hailing network. Likewise, we may encounter delays with the design, construction and regulatory or other approvals necessary to build and bring online future manufacturing facilities and products.

Any delay or other complication in ramping the production of our current products or the development, manufacture, launch and production ramp of our future products, features and services, or in doing so cost-effectively and with high quality, may harm our brand, business, prospects, financial condition and operating results.

We may be unable to grow our global product sales, delivery and installation capabilities and our servicing and vehicle charging networks, or we may be unable to accurately project and effectively manage our growth.

Our success will depend on our ability to continue to expand our sales capabilities. We are targeting with Model 3 and Model Y a global mass demographic with a broad range of potential customers, in which we have relatively limited experience projecting demand and pricing our products. We currently produce numerous international variants at a limited number of factories, and if our specific demand expectations for these variants prove inaccurate, we may not be able to timely generate deliveries matched to the vehicles that we produce in the same timeframe or that are commensurate with the size of our operations in a given region. Likewise, as we develop and grow our energy products and services worldwide, our success will depend on our ability to correctly forecast demand in various markets.

Because we do not have independent dealer networks, we are responsible for delivering all of our vehicles to our customers. We may face difficulties with deliveries at increasing volumes, particularly in international markets requiring significant transit times. For example, we saw challenges in ramping our logistics channels in China and Europe to initially deliver Model 3 there in the first quarter of 2019. We have deployed a number of delivery models, such as deliveries to customers' homes and workplaces and touchless deliveries, but there is no guarantee that such models will be scalable or be accepted globally. Likewise, as we ramp Solar Roof, we are working to substantially increase installation personnel and decrease installation times. If we are not successful in matching such capabilities with actual production, or if we experience unforeseen production delays or inaccurately forecast demand for the Solar Roof, our business, financial condition and operating results may be harmed.

Moreover, because of our unique expertise with our vehicles, we recommend that our vehicles be serviced by us or by certain authorized professionals. If we experience delays in adding such servicing capacity or servicing our vehicles efficiently, or experience unforeseen issues with the reliability of our vehicles, particularly higher-volume and newer additions to our fleet such as Model 3 and Model Y, it could overburden our servicing capabilities and parts inventory. Similarly, the increasing number of Tesla vehicles also requires us to continue to rapidly increase the number of our Supercharger stations and connectors throughout the world.

There is no assurance that we will be able to ramp our business to meet our sales, delivery, installation, servicing and vehicle charging targets globally, that our projections on which such targets are based will prove accurate or that the pace of growth or coverage of our customer infrastructure network will meet customer expectations. These plans require significant cash investments and management resources and there is no guarantee that they will generate additional sales or installations of our products, or that we will be able to avoid cost overruns or be able to hire additional personnel to support them. As we expand, we will also need to ensure our compliance with regulatory requirements in various jurisdictions applicable to the sale, installation and servicing of our products, the sale or dispatch of electricity related to our energy products and the operation of Superchargers. If we fail to manage our growth effectively, it may harm our brand, business, prospects, financial condition and operating results.

Our future growth and success are dependent upon consumers' demand for electric vehicles and specifically our vehicles in an automotive industry that is generally competitive, cyclical and volatile.

If the market for electric vehicles in general and Tesla vehicles in particular does not develop as we expect, develops more slowly than we expect, or if demand for our vehicles decreases in our markets or our vehicles compete with each other, our business, prospects, financial condition and operating results may be harmed.

We are still at an earlier stage and have limited resources and production relative to established competitors that offer internal combustion engine vehicles. In addition, electric vehicles still comprise a small percentage of overall vehicle sales. As a result, the market for our vehicles could be negatively affected by numerous factors, such as:

- perceptions about electric vehicle features, quality, safety, performance and cost;
- perceptions about the limited range over which electric vehicles may be driven on a single battery charge, and access to charging facilities;
- competition, including from other types of alternative fuel vehicles, plug-in hybrid electric vehicles and high fuel-economy internal combustion engine vehicles;
- volatility in the cost of oil and gasoline, such as wide fluctuations in crude oil prices during 2020;
- government regulations and economic incentives; and
- concerns about our future viability.

Finally, the target demographics for our vehicles, particularly Model 3 and Model Y, are highly competitive. Sales of vehicles in the automotive industry tend to be cyclical in many markets, which may expose us to further volatility.

Our suppliers may fail to deliver components according to schedules, prices, quality and volumes that are acceptable to us, or we may be unable to manage these components effectively.

Our products contain thousands of parts that we purchase globally from hundreds of suppliers including single-source direct suppliers. This exposes us to multiple potential sources of component shortages, such as those that we experienced in 2012 and 2016 with our initial Model S and Model X ramps. Unexpected changes in business conditions, materials pricing, labor issues, wars, governmental changes, tariffs, natural disasters such as the March 2011 earthquakes in Japan, health epidemics such as the global COVID-19 pandemic, trade and shipping disruptions and other factors beyond our or our suppliers' control could also affect these suppliers' ability to deliver components to us or to remain solvent and operational. For example, a global shortage of microchips has been reported since early 2021 and has caused challenges in our supply chain and production. The unavailability of any component or supplier could result in production delays, idle manufacturing facilities, product design changes and loss of access to important technology and tools for producing and supporting our products. Moreover, significant increases in our production, such as for Model 3 and Model Y, or product design changes by us have required and may in the future require us to procure additional components in a short amount of time. Our suppliers may not be willing or able to sustainably meet our timelines or our cost, quality and volume needs, or to do so may cost us more, which may require us to replace them with other sources. Finally, we have limited vehicle manufacturing experience outside of the Fremont Factory and we may experience issues increasing the level of localized procurement at our Gigafactory Shanghai and at future factories such as Gigafactory Berlin and Gigafactory Texas. While we believe that we will be able to secure additional or alternate sources or develop our own replacements for most of our components, there is no assurance that we will be able to do so quickly or at all. Additionally, we may be unsuccessful in our continuous efforts to negotiate with existing suppliers to obtain cost reductions and avoid unfavorable changes to terms, source less expensive suppliers for certain parts and redesign certain parts to make them less expensive to produce. Any of these occurrences may harm our business, prospects, financial condition and operating results.

As the scale of our vehicle production increases, we will also need to accurately forecast, purchase, warehouse and transport components at high volumes to our manufacturing facilities and servicing locations internationally. If we are unable to accurately match the timing and quantities of component purchases to our actual needs or successfully implement automation, inventory management and other systems to accommodate the increased complexity in our supply chain and parts management, we may incur unexpected production disruption, storage, transportation and write-off costs, which may harm our business and operating results.

We may be unable to meet our projected construction timelines, costs and production ramps at new factories, or we may experience difficulties in generating and maintaining demand for products manufactured there.

Our ability to increase production of our vehicles on a sustained basis, make them affordable globally by accessing local supply chains and workforces and streamline delivery logistics is dependent on the construction and ramp of Gigafactory Shanghai, Gigafactory Berlin and Gigafactory Texas. The construction of and commencement and ramp of production at these factories are subject to a number of uncertainties inherent in all new manufacturing operations, including ongoing compliance with regulatory requirements, procurement and maintenance of construction, environmental and operational licenses and approvals for additional expansion, potential supply chain constraints, hiring, training and retention of qualified employees and the pace of bringing production equipment and processes online with the capability to manufacture high-quality units at scale. For example, we are currently constructing Gigafactory Berlin under conditional permits in anticipation of being granted final permits. Moreover, we will have to establish and ramp production of our proprietary battery cells and packs at our new factories, and we additionally intend to incorporate sequential design and manufacturing changes into vehicles manufactured at each new factory. We have limited experience to date with developing and implementing manufacturing innovations outside of the Fremont Factory, as we began production at Gigafactory Shanghai relatively recently. In particular, the majority of our design and engineering resources are currently located in California. In order to meet our expectations for our new factories, we must expand and manage localized design and engineering talent and resources. If we experience any issues or delays in meeting our projected timelines, costs, capital efficiency and production capacity for our new factories, expanding and managing teams to implement iterative design and production changes there, maintaining and complying with the terms of any debt financing that we obtain to fund them or generating and maintaining demand for the vehicles we manufacture there, our business, prospects, operating results and financial condition may be harmed.

We will need to maintain and significantly grow our access to battery cells, including through the development and manufacture of our own cells, and control our related costs.

We are dependent on the continued supply of lithium-ion battery cells for our vehicles and energy storage products, and we will require substantially more cells to grow our business according to our plans. Currently, we rely on suppliers such as Panasonic for these cells. However, we have to date fully qualified only a very limited number of such suppliers and have limited flexibility in changing suppliers. Any disruption in the supply of battery cells from our suppliers could limit production of our vehicles and energy storage products. In the long term, we intend to supplement cells from our suppliers with cells manufactured by us, which we believe will be more efficient, manufacturable at greater volumes and cost-effective than currently available cells. However, our efforts to

develop and manufacture such battery cells have required and may require significant investments, and there can be no assurance that we will be able to achieve these targets in the timeframes that we have planned or at all. If we are unable to do so, we may have to curtail our planned vehicle and energy storage product production or procure additional cells from suppliers at potentially greater costs, either of which may harm our business and operating results.

In addition, the cost of battery cells, whether manufactured by our suppliers or by us, depends in part upon the prices and availability of raw materials such as lithium, nickel, cobalt and/or other metals. The prices for these materials fluctuate and their available supply may be unstable, depending on market conditions and global demand for these materials, including as a result of increased global production of electric vehicles and energy storage products. Any reduced availability of these materials may impact our access to cells and any increases in their prices may reduce our profitability if we cannot recoup the increased costs through increased vehicle prices. Moreover, any such attempts to increase product prices may harm our brand, prospects and operating results.

We face strong competition for our products and services from a growing list of established and new competitors.

The worldwide automotive market is highly competitive today and we expect it will become even more so in the future. For example, Model 3 and Model Y face competition from existing and future automobile manufacturers in the extremely competitive entry-level premium sedan and compact SUV markets. A significant and growing number of established and new automobile manufacturers, as well as other companies, have entered or are reported to have plans to enter the market for electric and other alternative fuel vehicles, including hybrid, plug-in hybrid and fully electric vehicles, as well as the market for self-driving technology and other vehicle applications and software platforms. In some cases, our competitors offer or will offer electric vehicles in important markets such as China and Europe, and/or have announced an intention to produce electric vehicles exclusively at some point in the future. Many of our competitors have significantly greater or better-established resources than we do to devote to the design, development, manufacturing, distribution, promotion, sale and support of their products. Increased competition could result in our lower vehicle unit sales, price reductions, revenue shortfalls, loss of customers and loss of market share, which may harm our business, financial condition and operating results.

We also face competition in our energy generation and storage business from other manufacturers, developers, installers and service providers of competing energy systems, as well as from large utilities. Decreases in the retail or wholesale prices of electricity from utilities or other renewable energy sources could make our products less attractive to customers and lead to an increased rate of residential customer defaults under our existing long-term leases and PPAs.

Risks Related to Our Operations

We may experience issues with lithium-ion cells or other components manufactured at Gigafactory Nevada, which may harm the production and profitability of our vehicle and energy storage products.

Our plan to grow the volume and profitability of our vehicles and energy storage products depends on significant lithium-ion battery cell production, including by our partner Panasonic at Gigafactory Nevada. Although Panasonic has a long track record of producing high-quality cells at significant volume at its factories in Japan, it has relatively limited experience with cell production at Gigafactory Nevada, which began in 2017. In addition, we produce several vehicle components, such as battery modules and packs incorporating the cells produced by Panasonic for Model 3 and Model Y and drive units (including to support Gigafactory Shanghai production), at Gigafactory Nevada, and we also manufacture energy storage products there. In the past, some of the manufacturing lines for certain product components took longer than anticipated to ramp to their full capacity, and additional bottlenecks may arise in the future as we continue to increase the production rate and introduce new lines. If we or Panasonic are unable to or otherwise do not maintain and grow our respective operations at Gigafactory Nevada production, or if we are unable to do so cost-effectively or hire and retain highly-skilled personnel there, our ability to manufacture our products profitably would be limited, which may harm our business and operating results.

Finally, the high volumes of lithium-ion cells and battery modules and packs manufactured at Gigafactory Nevada are stored and recycled at our various facilities. Any mishandling of battery cells may cause disruption to the operation of such facilities. While we have implemented safety procedures related to the handling of the cells, there can be no assurance that a safety issue or fire related to the cells would not disrupt our operations. Any such disruptions or issues may harm our brand and business.

We face risks associated with maintaining and expanding our international operations, including unfavorable and uncertain regulatory, political, economic, tax and labor conditions.

We are subject to legal and regulatory requirements, political uncertainty and social, environmental and economic conditions in numerous jurisdictions, including markets in which we generate significant sales, over which we have little control and which are inherently unpredictable. Our operations in such jurisdictions, particularly as a company based in the U.S., create risks relating to conforming our products to regulatory and safety requirements and charging and other electric infrastructures; organizing local operating entities; establishing, staffing and managing foreign business locations; attracting local customers; navigating foreign

government taxes, regulations and permit requirements; enforceability of our contractual rights; trade restrictions, customs regulations, tariffs and price or exchange controls; and preferences in foreign nations for domestically manufactured products. Such conditions may increase our costs, impact our ability to sell our products and require significant management attention, and may harm our business if we are unable to manage them effectively.

Our business may suffer if our products or features contain defects, fail to perform as expected or take longer than expected to become fully functional.

If our products contain design or manufacturing defects that cause them not to perform as expected or that require repair, or certain features of our vehicles such as new Autopilot or FSD features take longer than expected to become enabled, are legally restricted or become subject to onerous regulation, our ability to develop, market and sell our products and services may be harmed, and we may experience delivery delays, product recalls, product liability, breach of warranty and consumer protection claims and significant warranty and other expenses. For example, we are developing self-driving and driver assist technologies to rely on vision-based sensors, unlike alternative technologies in development that additionally require other redundant sensors. There is no guarantee that any incremental changes in the specific equipment we deploy in our vehicles over time will not result in initial functional disparities from prior iterations or will perform as expected in the timeframe we anticipate, or at all.

Our products are also highly dependent on software, which is inherently complex and may contain latent defects or errors or be subject to external attacks. Issues experienced by our customers have included those related to the Model S and Model X 17-inch display screen, the panoramic roof and the 12-volt battery in the Model S, the seats and doors in the Model X and the operation of solar panels installed by us. Although we attempt to remedy any issues we observe in our products as effectively and rapidly as possible, such efforts may not be timely, may hamper production or may not completely satisfy our customers. While we have performed extensive internal testing on our products and features, we currently have a limited frame of reference by which to evaluate their long-term quality, reliability, durability and performance characteristics. There can be no assurance that we will be able to detect and fix any defects in our products prior to their sale to or installation for customers.

We may be required to defend or insure against product liability claims.

The automobile industry generally experiences significant product liability claims, and as such we face the risk of such claims in the event our vehicles do not perform or are claimed to not have performed as expected. As is true for other automakers, our vehicles have been involved and we expect in the future will be involved in accidents resulting in death or personal injury, and such accidents where Autopilot or FSD features are engaged are the subject of significant public attention. We have experienced and we expect to continue to face claims arising from or related to misuse or claimed failures of such new technologies that we are pioneering. In addition, the battery packs that we produce make use of lithium-ion cells. On rare occasions, lithium-ion cells can rapidly release the energy they contain by venting smoke and flames in a manner that can ignite nearby materials as well as other lithium-ion cells. While we have designed our battery packs to passively contain any single cell's release of energy without spreading to neighboring cells, there can be no assurance that a field or testing failure of our vehicles or other battery packs that we produce will not occur, in particular due to a high-speed crash. Likewise, as our solar energy systems and energy storage products generate and store electricity, they have the potential to fail or cause injury to people or property. Any product liability claim may subject us to lawsuits and substantial monetary damages, product recalls or redesign efforts, and even a meritless claim may require us to defend it, all of which may generate negative publicity and be expensive and time-consuming. In most jurisdictions, we generally self-insure against the risk of product liability claims for vehicle exposure, meaning that any product liability claims will likely have to be paid from company funds and not by insurance.

We will need to maintain public credibility and confidence in our long-term business prospects in order to succeed.

In order to maintain and grow our business, we must maintain credibility and confidence among customers, suppliers, analysts, investors, ratings agencies and other parties in our long-term financial viability and business prospects. Maintaining such confidence may be challenging due to our limited operating history relative to established competitors; customer unfamiliarity with our products; any delays we may experience in scaling manufacturing, delivery and service operations to meet demand; competition and uncertainty regarding the future of electric vehicles or our other products and services; our quarterly production and sales performance compared with market expectations; and other factors including those over which we have no control. In particular, Tesla's products, business, results of operations, statements and actions are well-publicized by a range of third parties. Such attention includes frequent criticism, which is often exaggerated or unfounded, such as speculation regarding the sufficiency or stability of our management team. Any such negative perceptions, whether caused by us or not, may harm our business and make it more difficult to raise additional funds if needed.

We may be unable to effectively grow, or manage the compliance, residual value, financing and credit risks related to, our various financing programs.

We offer financing arrangements for our vehicles in North America, Europe and Asia primarily through various financial institutions. We also currently offer vehicle financing arrangements directly through our local subsidiaries in certain markets. Depending on the country, such arrangements are available for specified models and may include operating leases directly with us

under which we typically receive only a very small portion of the total vehicle purchase price at the time of lease, followed by a stream of payments over the term of the lease. We have also offered various arrangements for customers of our solar energy systems whereby they pay us a fixed payment to lease or finance the purchase of such systems or purchase electricity generated by them. If we do not successfully monitor and comply with applicable national, state and/or local financial regulations and consumer protection laws governing these transactions, we may become subject to enforcement actions or penalties.

The profitability of any directly-leased vehicles returned to us at the end of their leases depends on our ability to accurately project our vehicles' residual values at the outset of the leases, and such values may fluctuate prior to the end of their terms depending on various factors such as supply and demand of our used vehicles, economic cycles and the pricing of new vehicles. We have made in the past and may make in the future certain adjustments to our prices from time to time in the ordinary course of business, which may impact the residual values of our vehicles and reduce the profitability of our vehicle leasing program. The funding and growth of this program also relies on our ability to secure adequate financing and/or business partners. If we are unable to adequately fund our leasing program through internal funds, partners or other financing sources, and compelling alternative financing programs are not available for our customers who may expect or need such options, we may be unable to grow our vehicle deliveries. Furthermore, if our vehicle leasing business grows substantially, our business may suffer if we cannot effectively manage the resulting greater levels of residual risk.

Similarly, we have provided resale value guarantees to vehicle customers and partners for certain financing programs, under which such counterparties may sell their vehicles back to us at certain points in time at pre-determined amounts. However, actual resale values are subject to fluctuations over the term of the financing arrangements, such as from the vehicle pricing changes discussed above. If the actual resale values of any vehicles resold or returned to us pursuant to these programs are materially lower than the pre-determined amounts we have offered, our financial condition and operating results may be harmed.

Finally, our vehicle and solar energy system financing programs and our energy storage sales programs also expose us to customer credit risk. In the event of a widespread economic downturn or other catastrophic event, our customers may be unable or unwilling to satisfy their payment obligations to us on a timely basis or at all. If a significant number of our customers default, we may incur substantial credit losses and/or impairment charges with respect to the underlying assets.

We must manage ongoing obligations under our agreement with the Research Foundation for the State University of New York relating to our Gigafactory New York.

We are party to an operating lease and a research and development agreement through the SUNY Foundation. These agreements provide for the construction and use of our Gigafactory New York, which we have primarily used for the development and production of our Solar Roof and other solar products and components, energy storage components and Supercharger components, and for other lessor-approved functions. Under this agreement, we are obligated to, among other things, meet employment targets as well as specified minimum numbers of personnel in the State of New York and in Buffalo, New York and spend or incur \$5.00 billion in combined capital, operational expenses, costs of goods sold and other costs in the State of New York during a period that was initially 10 years beginning April 30, 2018. As we temporarily suspended most of our manufacturing operations at Gigafactory New York pursuant to a New York State executive order issued in March 2020 as a result of the COVID-19 pandemic, we were granted a one-year deferral of our obligation to be compliant with our applicable targets under such agreement on April 30, 2020, which was memorialized in an amendment to our agreement with the SUNY Foundation in July 2020. In April 2021, we were granted an additional deferral through December 31, 2021 subject only to memorialization in writing by us and the SUNY Foundation, as our operations at Gigafactory New York have not yet fully ramped due to a number of factors related to the pandemic. While we expect to have and grow significant operations at Gigafactory New York and the surrounding Buffalo area, any failure by us in any year over the course of the term of the agreement to meet all applicable future obligations may result in our obligation to pay a "program payment" of \$41 million to the SUNY Foundation for such year, the termination of our lease at Gigafactory New York which may require us to pay additional penalties, and/or the need to adjust certain of our operations, in particular our production ramp of the Solar Roof or other components. Any of the foregoing events may harm our business, financial condition and operating results.

If we are unable to attract, hire and retain key employees and qualified personnel, our ability to compete may be harmed.

The loss of the services of any of our key employees or any significant portion of our workforce could disrupt our operations or delay the development, introduction and ramp of our products and services. In particular, we are highly dependent on the services of Elon Musk, Technoking of Tesla and our Chief Executive Officer. None of our key employees is bound by an employment agreement for any specific term and we may not be able to successfully attract and retain senior leadership necessary to grow our business. Our future success also depends upon our ability to attract, hire and retain a large number of engineering, manufacturing, marketing, sales and delivery, service, installation, technology and support personnel, especially to support our planned high-volume product sales, market and geographical expansion and technological innovations. Recruiting efforts, particularly for senior employees, may be time-consuming, which may delay the execution of our plans. If we are not successful in managing these risks, our business, financial condition and operating results may be harmed.

Employees may leave Tesla or choose other employers over Tesla due to various factors, such as a very competitive labor market for talented individuals with automotive or technology experience, or any negative publicity related to us. In regions where we have or will have operations, particularly significant engineering and manufacturing centers, there is strong competition for individuals with skillsets needed for our business, including specialized knowledge of electric vehicles, software engineering, manufacturing engineering and electrical and building construction expertise. Moreover, we may be impacted by perceptions relating to reductions in force that we have conducted in the past in order to optimize our organizational structure and reduce costs and the departure of certain senior personnel for various reasons. Likewise, as a result of our temporary suspension of various U.S. manufacturing operations in the first half of 2020, in April 2020 we temporarily furloughed certain hourly employees and reduced most salaried employees' base salaries. We also compete with both mature and prosperous companies that have far greater financial resources than we do and start-ups and emerging companies that promise short-term growth opportunities.

Finally, our compensation philosophy for all of our personnel reflects our startup origins, with an emphasis on equity-based awards and benefits in order to closely align their incentives with the long-term interests of our stockholders. We periodically seek and obtain approval from our stockholders for future increases to the number of awards available under our equity incentive and employee stock purchase plans. If we are unable to obtain the requisite stockholder approvals for such future increases, we may have to expend additional cash to compensate our employees and our ability to retain and hire qualified personnel may be harmed.

We are highly dependent on the services of Elon Musk, Technoking of Tesla and our Chief Executive Officer.

We are highly dependent on the services of Elon Musk, Technoking of Tesla and our Chief Executive Officer. Although Mr. Musk spends significant time with Tesla and is highly active in our management, he does not devote his full time and attention to Tesla. Mr. Musk also currently serves as Chief Executive Officer and Chief Technical Officer of Space Exploration Technologies Corp., a developer and manufacturer of space launch vehicles, and is involved in other emerging technology ventures.

We must manage risks relating to our information technology systems and the threat of intellectual property theft, data breaches and cyber-attacks.

We must continue to expand and improve our information technology systems as our operations grow, such as product data management, procurement, inventory management, production planning and execution, sales, service and logistics, dealer management, financial, tax and regulatory compliance systems. This includes the implementation of new internally developed systems and the deployment of such systems in the U.S. and abroad. We must also continue to maintain information technology measures designed to protect us against intellectual property theft, data breaches, sabotage and other external or internal cyber-attacks or misappropriation. However, the implementation, maintenance, segregation and improvement of these systems require significant management time, support and cost, and there are inherent risks associated with developing, improving and expanding our core systems as well as implementing new systems and updating current systems, including disruptions to the related areas of business operation. These risks may affect our ability to manage our data and inventory, procure parts or supplies or manufacture, sell, deliver and service products, adequately protect our intellectual property or achieve and maintain compliance with, or realize available benefits under, tax laws and other applicable regulations.

Moreover, if we do not successfully implement, maintain or expand these systems as planned, our operations may be disrupted, our ability to accurately and/or timely report our financial results could be impaired and deficiencies may arise in our internal control over financial reporting, which may impact our ability to certify our financial results. Moreover, our proprietary information or intellectual property could be compromised or misappropriated and our reputation may be adversely affected. If these systems or their functionality do not operate as we expect them to, we may be required to expend significant resources to make corrections or find alternative sources for performing these functions.

Any unauthorized control or manipulation of our products' systems could result in loss of confidence in us and our products.

Our products contain complex information technology systems. For example, our vehicles and energy storage products are designed with built-in data connectivity to accept and install periodic remote updates from us to improve or update their functionality. While we have implemented security measures intended to prevent unauthorized access to our information technology networks, our products and their systems, malicious entities have reportedly attempted, and may attempt in the future, to gain unauthorized access to modify, alter and use such networks, products and systems to gain control of, or to change, our products' functionality, user interface and performance characteristics or to gain access to data stored in or generated by our products. We encourage reporting of potential vulnerabilities in the security of our products through our security vulnerability reporting policy, and we aim to remedy any reported and verified vulnerability. However, there can be no assurance that any vulnerabilities will not be exploited before they can be identified, or that our remediation efforts are or will be successful.

Any unauthorized access to or control of our products or their systems or any loss of data could result in legal claims or government investigations. In addition, regardless of their veracity, reports of unauthorized access to our products, their systems or data, as well as other factors that may result in the perception that our products, their systems or data are capable of being hacked, may harm our brand, prospects and operating results. We have been the subject of such reports in the past.

Our business may be adversely affected by any disruptions caused by union activities.

It is not uncommon for employees of certain trades at companies such as us to belong to a union, which can result in higher employee costs and increased risk of work stoppages. Moreover, regulations in some jurisdictions outside of the U.S. mandate employee participation in industrial collective bargaining agreements and work councils with certain consultation rights with respect to the relevant companies' operations. Although we work diligently to provide the best possible work environment for our employees, they may still decide to join or seek recognition to form a labor union, or we may be required to become a union signatory. From time to time, labor unions have engaged in campaigns to organize certain of our operations, as part of which such unions have filed unfair labor practice charges against us with the National Labor Relations Board (the "NLRB"), and they may do so in the future. In September 2019, an administrative law judge issued a recommended decision for Tesla on certain issues and against us on certain others. In March 2021, the NLRB adopted a portion of the recommendation and overturned others. We have filed a Notice of Appeal with the United States Circuit Court for the Fifth Circuit. Any unfavorable ultimate outcome for Tesla may have a negative impact on the perception of Tesla's treatment of our employees. Furthermore, we are directly or indirectly dependent upon companies with unionized work forces, such as suppliers and trucking and freight companies. Any work stoppages or strikes organized by such unions could delay the manufacture and sale of our products and may harm our business and operating results.

We may choose to or be compelled to undertake product recalls or take other similar actions.

As a manufacturing company, we must manage the risk of product recalls with respect to our products. Recalls for our vehicles have resulted from, for example, industry-wide issues with airbags from a particular supplier, concerns of corrosion in Model S and Model X power steering assist motor bolts, certain suspension failures in Model S and Model X and issues with Model S and Model X media control units. In addition to recalls initiated by us for various causes, testing of or investigations into our products by government regulators or industry groups may compel us to initiate product recalls or may result in negative public perceptions about the safety of our products, even if we disagree with the defect determination or have data that shows the actual safety risk to be non-existent. In the future, we may voluntarily or involuntarily initiate recalls if any of our products are determined by us or a regulator to contain a safety defect or be noncompliant with applicable laws and regulations, such as U.S. federal motor vehicle safety standards. Such recalls, whether voluntary or involuntary or caused by systems or components engineered or manufactured by us or our suppliers, could result in significant expense, supply chain complications and service burdens, and may harm our brand, business, prospects, financial condition and operating results.

Our current and future warranty reserves may be insufficient to cover future warranty claims.

We provide a manufacturer's warranty on all new and used Tesla vehicles we sell. We also provide certain warranties with respect to the energy generation and storage systems we sell, including on their installation and maintenance. For components not manufactured by us, we generally pass through to our customers the applicable manufacturers' warranties, but may retain some warranty responsibilities for some or all of the life of such components. As part of our energy generation and storage system contracts, we may provide the customer with performance guarantees that guarantee that the underlying system will meet or exceed the minimum energy generation or other energy performance requirements specified in the contract. Under these performance guarantees, we bear the risk of electricity production or other performance shortfalls, even if they result from failures in components from third party manufacturers. These risks are exacerbated in the event such manufacturers cease operations or fail to honor their warranties.

If our warranty reserves are inadequate to cover future warranty claims on our products, our financial condition and operating results may be harmed. Warranty reserves include our management's best estimates of the projected costs to repair or to replace items under warranty, which are based on actual claims incurred to date and an estimate of the nature, frequency and costs of future claims. Such estimates are inherently uncertain and changes to our historical or projected experience, especially with respect to products such as Model 3, Model Y and Solar Roof that we have introduced relatively recently and/or that we expect to produce at significantly greater volumes than our past products, may cause material changes to our warranty reserves in the future.

Our insurance coverage strategy may not be adequate to protect us from all business risks.

We may be subject, in the ordinary course of business, to losses resulting from products liability, accidents, acts of God and other claims against us, for which we may have no insurance coverage. As a general matter, we do not maintain as much insurance coverage as many other companies do, and in some cases, we do not maintain any at all. Additionally, the policies that we do have may include significant deductibles or self-insured retentions, policy limitations and exclusions, and we cannot be certain that our insurance coverage will be sufficient to cover all future losses or claims against us. A loss that is uninsured or which exceeds policy limits may require us to pay substantial amounts, which may harm our financial condition and operating results.

There is no guarantee that we will have sufficient cash flow from our business to pay our indebtedness or that we will not incur additional indebtedness.

As of March 31, 2021, we and our subsidiaries had outstanding \$9.52 billion in aggregate principal amount of indebtedness (see Note 10, *Debt*, to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q). Our consolidated indebtedness may increase our vulnerability to any generally adverse economic and industry conditions. We and our subsidiaries may,

subject to the limitations in the terms of our existing and future indebtedness, incur additional debt, secure existing or future debt or recapitalize our debt.

Holders of convertible senior notes issued by us or our subsidiary may convert such notes at their option prior to the scheduled maturities of the respective convertible senior notes under certain circumstances pursuant to the terms of such notes. Upon conversion of the applicable convertible senior notes, we will be obligated to deliver cash and/or shares pursuant to the terms of such notes. For example, as our stock price has significantly increased recently, we have seen higher levels of early conversions of such “in-the-money” convertible senior notes. Moreover, holders of such convertible senior notes may have the right to require us to repurchase their notes upon the occurrence of a fundamental change pursuant to the terms of such notes.

Our ability to make scheduled payments of the principal and interest on our indebtedness when due, to make payments upon conversion or repurchase demands with respect to our convertible senior notes or to refinance our indebtedness as we may need or desire, depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not continue to generate cash flow from operations in the future sufficient to satisfy our obligations under our existing indebtedness and any future indebtedness we may incur, and to make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as reducing or delaying investments or capital expenditures, selling assets, refinancing or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance existing or future indebtedness will depend on the capital markets and our financial condition at such time. In addition, our ability to make payments may be limited by law, by regulatory authority or by agreements governing our future indebtedness. We may not be able to engage in these activities on desirable terms or at all, which may result in a default on our existing or future indebtedness and harm our financial condition and operating results.

Our debt agreements contain covenant restrictions that may limit our ability to operate our business.

The terms of certain of our credit facilities, including our senior asset-based revolving credit agreement, contain, and any of our other future debt agreements may contain, covenant restrictions that limit our ability to operate our business, including restrictions on our ability to, among other things, incur additional debt or issue guarantees, create liens, repurchase stock, or make other restricted payments, and make certain voluntary prepayments of specified debt. In addition, under certain circumstances we are required to comply with a fixed charge coverage ratio. As a result of these covenants, our ability to respond to changes in business and economic conditions and engage in beneficial transactions, including to obtain additional financing as needed, may be restricted. Furthermore, our failure to comply with our debt covenants could result in a default under our debt agreements, which could permit the holders to accelerate our obligation to repay the debt. If any of our debt is accelerated, we may not have sufficient funds available to repay it.

Additional funds may not be available to us when we need or want them.

Our business and our future plans for expansion are capital-intensive, and the specific timing of cash inflows and outflows may fluctuate substantially from period to period. We may need or want to raise additional funds through the issuance of equity, equity-related or debt securities or through obtaining credit from financial institutions to fund, together with our principal sources of liquidity, the costs of developing and manufacturing our current or future products, to pay any significant unplanned or accelerated expenses or for new significant strategic investments, or to refinance our significant consolidated indebtedness, even if not required to do so by the terms of such indebtedness. We cannot be certain that additional funds will be available to us on favorable terms when required, or at all. If we cannot raise additional funds when we need them, our financial condition, results of operations, business and prospects could be materially and adversely affected.

We may be negatively impacted by any early obsolescence of our manufacturing equipment.

We depreciate the cost of our manufacturing equipment over their expected useful lives. However, product cycles or manufacturing technology may change periodically, and we may decide to update our products or manufacturing processes more quickly than expected. Moreover, improvements in engineering and manufacturing expertise and efficiency may result in our ability to manufacture our products using less of our currently installed equipment. Alternatively, as we ramp and mature the production of our products to higher levels, we may discontinue the use of already installed equipment in favor of different or additional equipment. The useful life of any equipment that would be retired early as a result would be shortened, causing the depreciation on such equipment to be accelerated, and our results of operations may be harmed.

We hold and may acquire digital assets that may be subject to volatile market prices, impairment and unique risks of loss.

In January 2021, we updated our investment policy to provide us with more flexibility to further diversify and maximize returns on our cash that is not required to maintain adequate operating liquidity, allowing us to invest a portion of such cash in certain alternative reserve assets including digital assets, gold bullion, gold exchange-traded funds and other assets as specified in the future. Thereafter, we invested certain of such cash in bitcoin and also began accepting bitcoin as a form of payment for certain of our products in specified regions, subject to applicable laws. We generally intend to hold our bitcoin positions long-term regardless of the manner of acquisition.

The prices of digital assets have been in the past and may continue to be highly volatile, including as a result of various associated risks and uncertainties. For example, the prevalence of such assets is a relatively recent trend, and their long-term adoption by investors, consumers and businesses is unpredictable. Moreover, their lack of a physical form, their reliance on technology for their creation, existence and transactional validation and their decentralization may subject their integrity to the threat of malicious attacks and technological obsolescence. Finally, the extent to which securities laws or other regulations apply or may apply in the future to such assets is unclear and may change in the future. If we hold digital assets and their values decrease relative to our purchase prices, our financial condition may be harmed.

Moreover, digital assets are currently considered indefinite-lived intangible assets under applicable accounting rules, meaning that any decrease in their fair values below our carrying values for such assets at any time subsequent to their acquisition will require us to recognize impairment charges, whereas we may make no upward revisions for any market price increases until a sale, which may adversely affect our operating results in any period in which such impairment occurs. Moreover, there is no guarantee that future changes in GAAP will not require us to change the way we account for digital assets held by us.

Finally, as intangible assets without centralized issuers or governing bodies, digital assets have been, and may in the future be, subject to security breaches, cyberattacks or other malicious activities, as well as human errors or computer malfunctions that may result in the loss or destruction of private keys needed to access such assets. While we intend to take all reasonable measures to secure any digital assets, if such threats are realized or the measures or controls we create or implement to secure our digital assets fail, it could result in a partial or total misappropriation or loss of our digital assets, and our financial condition and operating results may be harmed.

We are exposed to fluctuations in currency exchange rates.

We transact business globally in multiple currencies and have foreign currency risks related to our revenue, costs of revenue, operating expenses and localized subsidiary debt denominated in currencies other than the U.S. dollar, currently primarily the Chinese yuan, euro, Canadian dollar and Swiss franc. To the extent we have significant revenues denominated in such foreign currencies, any strengthening of the U.S. dollar would tend to reduce our revenues as measured in U.S. dollars, as we have historically experienced. In addition, a portion of our costs and expenses have been, and we anticipate will continue to be, denominated in foreign currencies, including the Chinese yuan and Japanese yen. If we do not have fully offsetting revenues in these currencies and if the value of the U.S. dollar depreciates significantly against these currencies, our costs as measured in U.S. dollars as a percent of our revenues will correspondingly increase and our margins will suffer. Moreover, while we undertake limited hedging activities intended to offset the impact of currency translation exposure, it is impossible to predict or eliminate such impact. As a result, our operating results may be harmed.

We may need to defend ourselves against intellectual property infringement claims, which may be time-consuming and expensive.

Our competitors or other third parties may hold or obtain patents, copyrights, trademarks or other proprietary rights that could prevent, limit or interfere with our ability to make, use, develop, sell or market our products and services, which could make it more difficult for us to operate our business. From time to time, the holders of such intellectual property rights may assert their rights and urge us to take licenses and/or may bring suits alleging infringement or misappropriation of such rights, which could result in substantial costs, negative publicity and management attention, regardless of merit. While we endeavor to obtain and protect the intellectual property rights that we expect will allow us to retain or advance our strategic initiatives, there can be no assurance that we will be able to adequately identify and protect the portions of intellectual property that are strategic to our business, or mitigate the risk of potential suits or other legal demands by our competitors. Accordingly, we may consider the entering into licensing agreements with respect to such rights, although no assurance can be given that such licenses can be obtained on acceptable terms or that litigation will not occur, and such licenses and associated litigation could significantly increase our operating expenses. In addition, if we are determined to have or believe there is a high likelihood that we have infringed upon a third party's intellectual property rights, we may be required to cease making, selling or incorporating certain components or intellectual property into the goods and services we offer, to pay substantial damages and/or license royalties, to redesign our products and services and/or to establish and maintain alternative branding for our products and services. In the event that we are required to take one or more such actions, our brand, business, financial condition and operating results may be harmed.

Our operations could be adversely affected by events outside of our control, such as natural disasters, wars or health epidemics.

We may be impacted by natural disasters, wars, health epidemics, weather conditions or other events outside of our control. For example, our corporate headquarters, the Fremont Factory and Gigafactory Nevada are located in seismically active regions in Northern California and Nevada, and our Gigafactory Shanghai is located in a flood-prone area. Moreover, the area in which our Gigafactory Texas is being built experienced severe winter storms in the first quarter of 2021 that had a widespread impact on utilities and transportation. If major disasters such as earthquakes, floods or other events occur, or our information system or communications network breaks down or operates improperly, our headquarters and production facilities may be seriously damaged, or we may have to stop or delay production and shipment of our products. In addition, the global COVID-19 pandemic has impacted economic markets, manufacturing operations, supply chains, employment and consumer behavior in nearly every geographic region and industry across the world, and we have been, and may in the future be, adversely affected as a result. We may incur expenses or delays relating to such events outside of our control, which could have a material adverse impact on our business, operating results and financial condition.

Risks Related to Government Laws and Regulations

Demand for our products and services may be impacted by the status of government and economic incentives supporting the development and adoption of such products.

Government and economic incentives that support the development and adoption of electric vehicles in the U.S. and abroad, including certain tax exemptions, tax credits and rebates, may be reduced, eliminated or exhausted from time to time. For example, a \$7,500 federal tax credit that was available in the U.S. for the purchase of our vehicles was reduced in phases during and ultimately ended in 2019. We believe that this sequential phase-out likely pulled forward some vehicle demand into the periods preceding each reduction. Moreover, previously available incentives favoring electric vehicles in areas including Ontario, Canada, Germany, Hong Kong, Denmark and California have expired or were cancelled or temporarily unavailable, and in some cases were not eventually replaced or reinstituted, which may have negatively impacted sales. Any similar developments could have some negative impact on demand for our vehicles, and we and our customers may have to adjust to them.

In addition, certain governmental rebates, tax credits and other financial incentives that are currently available with respect to our solar and energy storage product businesses allow us to lower our costs and encourage customers to buy our products and investors to invest in our solar financing funds. However, these incentives may expire when the allocated funding is exhausted, reduced or terminated as renewable energy adoption rates increase, sometimes without warning. For example, the U.S. federal government currently offers certain tax credits for the installation of solar power facilities and energy storage systems that are charged from a co-sited solar power facility; however, these tax credits are currently scheduled to decline and/or expire in 2023 and beyond. Likewise, in jurisdictions where net metering is currently available, our customers receive bill credits from utilities for energy that their solar energy systems generate and export to the grid in excess of the electric load they use. The benefit available under net metering has been or has been proposed to be reduced, altered or eliminated in several jurisdictions, and has also been contested and may continue to be contested before the Federal Energy Regulatory Commission. Any reductions or terminations of such incentives may harm our business, prospects, financial condition and operating results by making our products less competitive for potential customers, increasing our cost of capital and adversely impacting our ability to attract investment partners and to form new financing funds for our solar and energy storage assets.

Finally, we and our fund investors claim these U.S. federal tax credits and certain state incentives in amounts based on independently appraised fair market values of our solar and energy storage systems. Nevertheless, the relevant governmental authorities have audited such values and in certain cases have determined that these values should be lower, and they may do so again in the future. Such determinations may result in adverse tax consequences and/or our obligation to make indemnification or other payments to our funds or fund investors.

We are subject to evolving laws and regulations that could impose substantial costs, legal prohibitions or unfavorable changes upon our operations or products.

As we grow our manufacturing operations in additional regions, we are or will be subject to complex environmental, manufacturing, health and safety laws and regulations at numerous jurisdictional levels in the U.S., China, Germany and other locations abroad, including laws relating to the use, handling, storage, recycling, disposal and/or human exposure to hazardous materials, product material inputs and post-consumer products and with respect to constructing, expanding and maintaining our facilities. The costs of compliance, including remediations of any discovered issues and any changes to our operations mandated by new or amended laws, may be significant, and any failures to comply could result in significant expenses, delays or fines. We are also subject to laws and regulations applicable to the supply, manufacture, import, sale and service of automobiles both domestically and abroad. For example, in countries outside of the U.S., we are required to meet standards relating to vehicle safety, fuel economy and emissions that are often materially different from requirements in the U.S., thus resulting in additional investment into the vehicles and systems to ensure regulatory compliance in those countries. This process may include official review and certification of our vehicles

by foreign regulatory agencies prior to market entry, as well as compliance with foreign reporting and recall management systems requirements.

In particular, we offer in our vehicles Autopilot and FSD features that today assist drivers with certain tedious and potentially dangerous aspects of road travel, but which currently require drivers to remain fully engaged in the driving operation. We are continuing to develop our FSD technology with the goal of achieving fully self-driving capability in the future. There are a variety of international, federal and state regulations that may apply to the sale, registration and operation of fully self-driving vehicles, which include many existing vehicle standards that were not originally intended to apply to vehicles that may not have a driver. Such regulations continue to rapidly change, which increases the likelihood of a patchwork of complex or conflicting regulations, or may delay products or restrict self-driving features and availability, which could adversely affect our business.

Finally, as a manufacturer, installer and service provider with respect to solar generation and energy storage systems, and a supplier of electricity generated and stored by certain of the solar energy and energy storage systems we install for customers, we are impacted by federal, state and local regulations and policies concerning electricity pricing, the interconnection of electricity generation and storage equipment with the electrical grid and the sale of electricity generated by third party-owned systems. If regulations and policies that adversely impact the interconnection or use of our solar and energy storage systems are introduced, they could deter potential customers from purchasing our solar and energy storage products, threaten the economics of our existing contracts and cause us to cease solar and energy storage system sales and operations in the relevant jurisdictions, which may harm our business, financial condition and operating results.

Any failure by us to comply with a variety of U.S. and international privacy and consumer protection laws may harm us.

Any failure by us or our vendor or other business partners to comply with our public privacy notice or with federal, state or international privacy, data protection or security laws or regulations relating to the processing, collection, use, retention, security and transfer of personally identifiable information could result in regulatory or litigation-related actions against us, legal liability, fines, damages, ongoing audit requirements and other significant costs. Substantial expenses and operational changes may be required in connection with maintaining compliance with such laws, and even an unsuccessful challenge by customers or regulatory authorities of our activities could result in adverse publicity and could require a costly response from and defense by us. In addition, certain emerging privacy laws are still subject to a high degree of uncertainty as to their interpretation, application and impact, and may require extensive system and operational changes, be difficult to implement, increase our operating costs, adversely impact the cost or attractiveness of the products or services we offer, or result in adverse publicity and harm our reputation. For example, in May 2018, the General Data Protection Regulation began to fully apply to the processing of personal information collected from individuals located in the European Union, and has created new compliance obligations and significantly increased fines for noncompliance. Similarly, as of January 2020, the California Consumer Privacy Act imposes certain legal obligations on our use and processing of personal information related to California residents. Finally, new privacy and cybersecurity laws are coming into effect in China. Notwithstanding our efforts to protect the security and integrity of our customers' personal information, we may be required to expend significant resources to comply with data breach requirements if, for example, third parties improperly obtain and use the personal information of our customers or we otherwise experience a data loss with respect to customers' personal information. A major breach of our network security and systems may result in fines, penalties and damages and harm our brand, prospects and operating results.

We could be subject to liability, penalties and other restrictive sanctions and adverse consequences arising out of certain governmental investigations and proceedings.

We are cooperating with certain government investigations as discussed in Note 12, *Commitments and Contingencies*, to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q. To our knowledge, no government agency in any such ongoing investigation has concluded that any wrongdoing occurred. However, we cannot predict the outcome or impact of any such ongoing matters, and there exists the possibility that we could be subject to liability, penalties and other restrictive sanctions and adverse consequences if the SEC, the U.S. Department of Justice or any other government agency were to pursue legal action in the future. Moreover, we expect to incur costs in responding to related requests for information and subpoenas, and if instituted, in defending against any governmental proceedings.

For example, on October 16, 2018, the U.S. District Court for the Southern District of New York entered a final judgment approving the terms of a settlement filed with the Court on September 29, 2018, in connection with the actions taken by the SEC relating to Mr. Musk's statement on August 7, 2018 that he was considering taking Tesla private. Pursuant to the settlement, we, among other things, paid a civil penalty of \$20 million, appointed an independent director as the chair of our board of directors, appointed two additional independent directors to our board of directors and made further enhancements to our disclosure controls and other corporate governance-related matters. On April 26, 2019, this settlement was amended to clarify certain of the previously-agreed disclosure procedures, which was subsequently approved by the Court. All other terms of the prior settlement were reaffirmed without modification. Although we intend to continue to comply with the terms and requirements of the settlement, if there is a lack of compliance or an alleged lack of compliance, additional enforcement actions or other legal proceedings may be instituted against us.

We may face regulatory challenges to or limitations on our ability to sell vehicles directly.

While we intend to continue to leverage our most effective sales strategies, including sales through our website, we may not be able to sell our vehicles through our own stores in certain states in the U.S. with laws that may be interpreted to impose limitations on this direct-to-consumer sales model. It has also been asserted that the laws in some states limit our ability to obtain dealer licenses from state motor vehicle regulators, and such assertions persist. In certain locations, decisions by regulators permitting us to sell vehicles have been and may be challenged by dealer associations and others as to whether such decisions comply with applicable state motor vehicle industry laws. We have prevailed in many of these lawsuits and such results have reinforced our continuing belief that state laws were not intended to apply to a manufacturer that does not have franchise dealers. In some states, there have also been regulatory and legislative efforts by dealer associations to propose laws that, if enacted, would prevent us from obtaining dealer licenses in their states given our current sales model. A few states have passed legislation that clarifies our ability to operate, but at the same time limits the number of dealer licenses we can obtain or stores that we can operate. The application of state laws applicable to our operations continues to be difficult to predict.

Internationally, there may be laws in jurisdictions we have not yet entered or laws we are unaware of in jurisdictions we have entered that may restrict our sales or other business practices. Even for those jurisdictions we have analyzed, the laws in this area can be complex, difficult to interpret and may change over time. Continued regulatory limitations and other obstacles interfering with our ability to sell vehicles directly to consumers may harm our financial condition and operating results.

Risks Related to the Ownership of Our Common Stock***The trading price of our common stock is likely to continue to be volatile.***

The trading price of our common stock has been highly volatile and could continue to be subject to wide fluctuations in response to various factors, some of which are beyond our control. Our common stock has experienced over the last 52 weeks an intra-day trading high of \$900.40 per share and a low of \$89.28 per share, as adjusted to give effect to the Stock Split. The stock market in general, and the market for technology companies in particular, has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. In particular, a large proportion of our common stock has been historically and may in the future be traded by short sellers which may put pressure on the supply and demand for our common stock, further influencing volatility in its market price. Public perception and other factors outside of our control may additionally impact the stock price of companies like us that garner a disproportionate degree of public attention, regardless of actual operating performance. In addition, in the past, following periods of volatility in the overall market or the market price of our shares, securities class action litigation has been filed against us. While we defend such actions vigorously, any judgment against us or any future stockholder litigation could result in substantial costs and a diversion of our management's attention and resources.

Our financial results may vary significantly from period to period due to fluctuations in our operating costs and other factors.

We expect our period-to-period financial results to vary based on our operating costs, which we anticipate will fluctuate as the pace at which we continue to design, develop and manufacture new products and increase production capacity by expanding our current manufacturing facilities and adding future facilities, may not be consistent or linear between periods. Additionally, our revenues from period to period may fluctuate as we introduce existing products to new markets for the first time and as we develop and introduce new products. As a result of these factors, we believe that quarter-to-quarter comparisons of our financial results, especially in the short term, are not necessarily meaningful and that these comparisons cannot be relied upon as indicators of future performance. Moreover, our financial results may not meet expectations of equity research analysts, ratings agencies or investors, who may be focused only on short-term quarterly financial results. If any of this occurs, the trading price of our stock could fall substantially, either suddenly or over time.

We may fail to meet our publicly announced guidance or other expectations about our business, which could cause our stock price to decline.

We may provide from time to time guidance regarding our expected financial and business performance. Correctly identifying key factors affecting business conditions and predicting future events is inherently an uncertain process, and our guidance may not ultimately be accurate and has in the past been inaccurate in certain respects, such as the timing of new product manufacturing ramps. Our guidance is based on certain assumptions such as those relating to anticipated production and sales volumes (which generally are not linear throughout a given period), average sales prices, supplier and commodity costs and planned cost reductions. If our guidance varies from actual results due to our assumptions not being met or the impact on our financial performance that could occur as a result of various risks and uncertainties, the market value of our common stock could decline significantly.

Transactions relating to our convertible senior notes may dilute the ownership interest of existing stockholders, or may otherwise depress the price of our common stock.

The conversion of some or all of the convertible senior notes issued by us or our subsidiaries would dilute the ownership interests of existing stockholders to the extent we deliver shares upon conversion of any of such notes by their holders, and we may be

required to deliver a significant number of shares. Any sales in the public market of the common stock issuable upon such conversion could adversely affect their prevailing market prices. In addition, the existence of the convertible senior notes may encourage short selling by market participants because the conversion of such notes could be used to satisfy short positions, or the anticipated conversion of such notes into shares of our common stock could depress the price of our common stock.

Moreover, in connection with certain of the convertible senior notes, we entered into convertible note hedge transactions, which are expected to reduce the potential dilution and/or offset potential cash payments we are required to make in excess of the principal amount upon conversion of the applicable notes. We also entered into warrant transactions with the hedge counterparties, which could separately have a dilutive effect on our common stock to the extent that the market price per share of our common stock exceeds the applicable strike price of the warrants on the applicable expiration dates. In addition, the hedge counterparties or their affiliates may enter into various transactions with respect to their hedge positions, which could also affect the market price of our common stock or the convertible senior notes.

If Elon Musk were forced to sell shares of our common stock that he has pledged to secure certain personal loan obligations, such sales could cause our stock price to decline.

Certain banking institutions have made extensions of credit to Elon Musk, our Chief Executive Officer, a portion of which was used to purchase shares of common stock in certain of our public offerings and private placements at the same prices offered to third-party participants in such offerings and placements. We are not a party to these loans, which are partially secured by pledges of a portion of the Tesla common stock currently owned by Mr. Musk. If the price of our common stock were to decline substantially, Mr. Musk may be forced by one or more of the banking institutions to sell shares of Tesla common stock to satisfy his loan obligations if he could not do so through other means. Any such sales could cause the price of our common stock to decline further.

Anti-takeover provisions contained in our governing documents, applicable laws and our convertible senior notes could impair a takeover attempt.

Our certificate of incorporation and bylaws afford certain rights and powers to our board of directors that may facilitate the delay or prevention of an acquisition that it deems undesirable. We are also subject to Section 203 of the Delaware General Corporation Law and other provisions of Delaware law that limit the ability of stockholders in certain situations to effect certain business combinations. In addition, the terms of our convertible senior notes may require us to repurchase such notes in the event of a fundamental change, including a takeover of our company. Any of the foregoing provisions and terms that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

ITEM 3. DEFAULT UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

See Index to Exhibits at the end of this Quarterly Report on Form 10-Q for the information required by this Item.

INDEX TO EXHIBITS

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.1	<u>Amendment No. 1 to the Second Amended and Restated Loan and Security Agreement, dated as of March 15, 2021, by and among Tesla 2014 Warehouse SPV LLC, Tesla Finance LLC, the Lenders and Group Agents from time to time party thereto, Deutsche Bank Trust Company Americas, as Paying Agent, and Deutsche Bank AG, New York Branch, as Administrative Agent.</u>	—	—	—	—	X
31.1	<u>Rule 13a-14(a) / 15(d)-14(a) Certification of Principal Executive Officer</u>	—	—	—	—	X
31.2	<u>Rule 13a-14(a) / 15(d)-14(a) Certification of Principal Financial Officer</u>	—	—	—	—	X
32.1*	<u>Section 1350 Certifications</u>	—	—	—	—	
101.INS	Inline XBRL Instance Document	—	—	—	—	X
101.SCH	Inline XBRL Taxonomy Extension Schema Document	—	—	—	—	X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.	—	—	—	—	X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document	—	—	—	—	X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document	—	—	—	—	X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document	—	—	—	—	X
104	Cover Page Interactive Data File (formatted as inline XBRL with applicable taxonomy extension information contained in Exhibits 101)					

* Furnished herewith

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Tesla, Inc.

Date: April 27, 2021

/s/ Zachary J. Kirkhorn

Zachary J. Kirkhorn
Chief Financial Officer
(Principal Financial Officer and
Duly Authorized Officer)

EXHIBIT 5

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2019

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission File Number: 001-34756

Tesla, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

3500 Deer Creek Road
Palo Alto, California
(Address of principal executive offices)

91-2197729
(I.R.S. Employer
Identification No.)

94304
(Zip Code)

(650) 681-5000

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock	TSLA	The Nasdaq Global Select Market

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark whether the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 ("Exchange Act") during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer <input checked="" type="checkbox"/>	Accelerated filer <input type="checkbox"/>
Non-accelerated filer <input type="checkbox"/>	Smaller reporting company <input type="checkbox"/>
Emerging growth company <input type="checkbox"/>	

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of voting stock held by non-affiliates of the registrant, as of June 30, 2019, the last day of the registrant's most recently completed second fiscal quarter, was \$ 31.54 billion (based on the closing price for shares of the registrant's Common Stock as reported by the NASDAQ Global Select Market on June 30, 2019). Shares of Common Stock held by each executive officer, director, and holder of 5% or more of the outstanding Common Stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of February 7, 2020, there were 181,341,586 shares of the registrant's Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement for the 2020 Annual Meeting of Stockholders are incorporated herein by reference in Part III of this Annual Report on Form 10-K to the extent stated herein. Such proxy statement will be filed with the Securities and Exchange Commission within 120 days of the registrant's fiscal year ended December 31, 2019.

TESLA, INC.

ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2019

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Forward-Looking Statements

The discussions in this Annual Report on Form 10-K contain forward-looking statements reflecting our current expectations that involve risks and uncertainties. These forward-looking statements include, but are not limited to, statements concerning our strategy, future operations, future financial position, future revenues, projected costs, profitability, expected cost reductions, capital adequacy, expectations regarding demand and acceptance for our technologies, growth opportunities and trends in the market in which we operate, prospects and plans and objectives of management. The words “anticipates,” “believes,” “could,” “estimates,” “expects,” “intends,” “may,” “plans,” “projects,” “will,” “would” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements that we make. These forward-looking statements involve risks and uncertainties that could cause our actual results to differ materially from those in the forward-looking statements, including, without limitation, the risks set forth in Part I, Item 1A, “Risk Factors” in this Annual Report on Form 10-K and in our other filings with the Securities and Exchange Commission. We do not assume any obligation to update any forward-looking statements.

PART I**ITEM 1. BUSINESS****Overview**

We design, develop, manufacture, sell and lease high-performance fully electric vehicles and energy generation and storage systems, and offer services related to our products. We are the world's first vertically integrated sustainable energy company, offering end-to-end clean energy products, including generation, storage and consumption. We generally sell our products directly to customers, including through our website and retail locations. We also continue to grow our customer-facing infrastructure through a global network of vehicle service centers, Mobile Service technicians, body shops, Supercharger stations and Destination Chargers to accelerate the widespread adoption of our products. We emphasize performance, attractive styling and the safety of our users and workforce in the design and manufacture of our products, and are continuing to develop full self-driving technology for improved safety. We also strive to lower the cost of ownership for our customers through continuous efforts to reduce manufacturing costs and by offering financial services tailored to our vehicles. Our sustainable energy products, engineering expertise, intense focus to accelerate the world's transition to sustainable energy and achieve the benefits of autonomous driving, and business model differentiate us from other companies.

We currently offer or are planning to introduce electric vehicles to address a wide range of consumer and commercial vehicle markets, including Model 3, Model Y, Model S, Model X, Cybertruck, Tesla Semi and a new Tesla Roadster. In order to meet customers' range, functionality and performance expectations, we have employed our considerable design and vehicle engineering capabilities to overcome the design, styling and performance issues that have historically limited broad adoption of electric vehicles. Combined with technical advancements in our powertrain system, Autopilot and Full Self-Driving ("FSD") hardware, and neural net, our electric vehicles boast advantages such as leading range and recharging flexibility; superior acceleration, handling and safety characteristics; a unique suite of user convenience and infotainment features; the ability to have additional features enabled through over-the-air updates; and savings in charging, maintenance and other costs of ownership.

In furtherance of our mission to accelerate the world's transition to sustainable energy, we have also developed an expertise in solar energy systems. We sell and lease retrofit solar energy systems for residential and commercial customers, and alternatively provide certain customers with access to our solar energy systems through power purchase or subscription-based arrangements. We also offer the Solar Roof, which features attractive and durable glass roof tiles integrated with solar energy generation. Our approach to the solar business emphasizes simplicity, standardization and accessibility to make it easy and cost-effective for customers to adopt clean energy, while reducing our customer acquisition costs.

Finally, we have leveraged our technological expertise in batteries, energy management, power electronics, and integrated systems from our vehicle powertrain systems to develop and manufacture energy storage products, including Powerwall, Powerpack and Megapack. These scalable systems may be used in homes, commercial facilities and on the utility grid, and are capable of numerous applications including backup or off-grid power, peak demand reduction, demand response, reducing intermittency of renewable energy generation, facilitation of the use of renewable energy generation over fossil fuel generation, and other grid services and wholesale electric market services. Drawing on our solar business expertise, we can also offer integrated systems combining energy generation and storage. Like our vehicles, our energy storage products can be remotely updated over-the-air with software or firmware improvements.

Segment Information

We operate as two reportable segments: (i) automotive and (ii) energy generation and storage.

The automotive segment includes the design, development, manufacturing, sales, and leasing of electric vehicles as well as sales of automotive regulatory credits. Additionally, the automotive segment is also comprised of services and other, which includes non-warranty after-sales vehicle services, sales of used vehicles, retail merchandise, sales by our acquired subsidiaries to third party customers, and vehicle insurance revenue. The energy generation and storage segment includes the design, manufacture, installation, sales, and leasing of solar energy generation and energy storage products, services related to such products, and sales of solar energy system incentives.

Our Products and Services

Automotive

Model 3

Model 3 is a four-door mid-size sedan that we designed for manufacturability with a base price for mass-market appeal, which we began delivering in July 2017. We currently manufacture Model 3 at the Fremont Factory as well as at Gigafactory Shanghai, where we are ramping production with an installed annual production capacity for 150,000 Model 3 vehicles. We currently offer Model 3 in rear-wheel drive and dual motor all-wheel drive variants, including a Performance version of the latter.

Model Y

Model Y is a compact sport utility vehicle (“SUV”) built on the Model 3 platform with the capability for seating for up to seven adults, which we began producing in January 2020 and expect to commence delivering in the first quarter of 2020. We currently manufacture Model Y at the Fremont Factory, and are further ramping production there and making preparations for production next at Gigafactory Shanghai. We currently offer Model Y in dual motor all-wheel drive Long Range and Performance versions.

Model S and Model X

Model S is a four-door full-size sedan that we began delivering in June 2012. Model S introduced Tesla vehicle mainstays such as a large touchscreen driver interface, Autopilot hardware, over-the-air software updates, and fast charging through our Supercharger network.

Model X is a mid-size SUV with seating for up to seven adults, which we began delivering in September 2015. Model X introduced features including unique falcon wing doors for easy access to passenger seating and an all-glass panoramic windshield.

Model S and Model X feature the highest performance characteristics and longest ranges that we offer in a sedan and SUV, respectively. These vehicles are equipped with a standard dual motor all-wheel drive powertrain, and are also available in Performance versions with enhanced acceleration and/or top speed and styling. We manufacture Model S and Model X at the Fremont Factory.

Future Consumer and Commercial Electric Vehicles

In addition, we have unveiled a number of planned electric vehicles to address a broader cross-section of the vehicle market, including specialized consumer electric vehicles in Cybertruck and the new Tesla Roadster and a commercial electric vehicle in Tesla Semi.

Energy Generation and Storage

Energy Storage Products

We began deliveries of the current generations of our Powerwall and Powerpack products in late 2016 and 2017, respectively, and of our Megapack product in late 2019. Powerwall is a 13.5 kilowatt hour (“kWh”) rechargeable lithium-ion battery with integrated inverter, designed to store energy at a home or small commercial facility. Powerpack and Megapack are fully integrated energy storage solutions for commercial, industrial, utility and energy generation customers, comprised of up to 232kWh (AC) battery packs and up to 700 kilovolt-ampere (at 480V) inverters for Powerpack and up to 3 megawatt hour (“MWh”) (AC) battery packs and up to 1.54 megavolt-ampere inverters for Megapack, multiple units of which may be grouped together to form larger installations, capable of reaching gigawatt hours (“GWh”) or greater. Powerpack and Megapack can also be combined with renewable energy generation sources to create microgrids that provide communities with clean, resilient and affordable power.

We also develop and advance our software capabilities for the control and optimal dispatch of energy storage systems across a wide range of markets and applications, which can be sent to our systems through over-the-air updates.

Solar Energy Offerings

The major components of our retrofit solar energy systems include solar panels that convert sunlight into electrical current, inverters that convert the electrical output from the panels to a usable current compatible with the electric grid, racking that attaches the solar panels to the roof or ground, electrical hardware that connects the solar energy system to the electric grid, and our monitoring device. We purchase the majority of these components, and we do so from multiple sources to ensure competitive pricing and adequate supply. We also design and manufacture certain components for our solar energy products. In addition to selling retrofit solar energy systems to customers and certain channel partners, we also make them available through lease and power purchase agreement (“PPA”) arrangements, currently with 20-year terms and typically with renewal options, and a subscription-based sale of solar power, which is currently available in California.

In 2019, we commenced direct customer and channel partner sales of the third generation of our Solar Roof, which features aesthetically pleasing and durable glass roofing tiles designed to complement the architecture of homes and commercial buildings while turning sunlight into electricity. We are ramping the volume production of this version of the Solar Roof at Gigafactory New York, and are increasing our installation capabilities by training our personnel and third party partners.

Technology**Automotive**

Our core vehicle technology competencies include battery and powertrain engineering and manufacturing, as well as our ability to design vehicles that utilize the unique advantages of an electric powertrain. Our core intellectual property includes our electric powertrain and our work on developing self-driving technologies. Our powertrain consists of our battery pack, power electronics, motor, gearbox, and control software. We offer several powertrain variants for our vehicles that incorporate years of research and development. In addition, we have designed our vehicles to incorporate the latest advances in consumer technologies, such as mobile computing, sensing, displays, and connectivity.

Battery and Powertrain

We optimize the design of the lithium-ion cells we use and of our battery packs to achieve high energy density at decreasing costs while also maintaining safety, reliability and long life in the rigors of an automotive environment. Our proprietary technology includes systems for high density energy storage, cooling, safety, charge balancing, structural durability, and electronics management. We have also pioneered advanced manufacturing techniques to manufacture large volumes of battery packs with high quality at low cost. Moreover, we maintain extensive testing and R&D capabilities for battery cells, packs and systems, and have built an expansive body of knowledge on lithium-ion cell vendors, chemistry types and performance characteristics. We believe that the flexibility that we have built into our designs, combined with our research and real-world performance data, will enable us to continue to evaluate new battery cells and optimize battery pack system performance and cost for our current and future vehicles.

The power electronics in our electric powertrain govern the flow of electrical current throughout our vehicles as needed, convert direct current from the battery pack into alternating current to drive our vehicles’ motors (and vice versa from an external electricity source to charge the battery pack), and provide regenerative braking functionality. The primary technological advantages to our proprietary power electronics designs include the ability to drive large amounts of electrical current in a small physical package with high efficiency and low cost, and to recharge on a wide variety of electricity sources at home, at the office or on the road, including at our Superchargers.

We offer dual motor powertrain vehicles, which use two electric motors to maximize traction and performance in an all-wheel drive configuration. Tesla’s dual motor powertrain digitally and independently controls torque to the front and rear wheels. The near-instantaneous response of the motors, combined with low centers of gravity, provides drivers with controlled performance and increased traction control. We are also developing vehicle powertrain technology featuring three electric motors for further increased performance.

Vehicle Control and Infotainment Software

The performance and safety systems of our vehicles and their battery packs require sophisticated control software. There are numerous processors in our vehicles to control these functions, and we write custom firmware for many of these processors. Software algorithms control traction, vehicle stability, the acceleration and regenerative braking of the vehicle, climate control and thermal management, and are also used extensively to monitor the charge state of the battery pack and to manage all of its safety systems. Drivers use the information and control systems in our vehicles to optimize performance, customize vehicle behavior, manage charging modes and times and control all infotainment functions. We develop almost all of this software, including most of the user interfaces, internally.

Self-Driving Development

We have expertise in developing technologies, systems and software to achieve self-driving vehicles. We are equipping all new Tesla vehicles with hardware needed for full self-driving in the future, including a new powerful and proprietary on-board computer that we introduced in 2019. This hardware suite enables field data from the on-board camera, radar, ultrasonics, and GPS to continually train and improve our neural network for real-world performance.

Currently, we offer in our vehicles certain advanced driver assist systems under our Autopilot and FSD options, including auto-steering, traffic aware cruise control, automated lane changing, automated parking, driver warning systems, and a Smart Summon feature that enables vehicles to be remotely summoned over short distances in parking lots and driveways. These systems relieve our drivers of the most tedious and potentially dangerous aspects of road travel, and the field data feedback loops from the on-board hardware, as well as over-the-air firmware updates, allow us to improve them over time. Although at present the driver is ultimately responsible for controlling the vehicle, our systems provide safety and convenience functionality that allows our customers to rely on them much like the system that airplane pilots use when conditions permit.

Energy Generation and Storage***Energy Storage Products***

We are leveraging many of the component-level technologies from our vehicles to advance our energy storage products, including high density energy storage, cooling, safety, charge balancing, structural durability, and electronics management. By taking a modular approach to the design of battery systems, we are able to maximize manufacturing capacity to produce our Powerwall, Powerpack and Megapack products. Additionally, we are making significant strides in the area of bi-directional, grid-tied power electronics that enable us to interconnect our battery systems seamlessly with global electricity grids while providing fast-acting systems for power injection and absorption.

Solar Energy Systems

We are continually innovating and developing new technologies to facilitate the growth of our solar energy business. For example, we have developed proprietary software to reduce solar energy system design and installation timelines and costs, and the Solar Roof is designed to work seamlessly with Powerwall.

Design and Engineering**Automotive**

We have created significant in-house capabilities in the design and test engineering of electric vehicles and their components and systems. We design, engineer and test bodies, chassis, exteriors, interiors, heating and cooling and low voltage electrical systems in-house, and to a lesser extent, in conjunction with our suppliers. Our team has core competencies in computer aided design and crash test simulations, which reduces the product development time of new models. We continue to grow our capabilities, including for on-site crash testing, durability testing and component validation.

Additionally, our team has expertise in selecting and working with various materials. For example, given the impact of mass on range, which is very important for passenger vehicles, Model S and Model X are built with lightweight aluminum bodies and chassis which incorporate a variety of materials and production methods that help optimize vehicle weight, and Model 3 and Model Y are built with a mix of materials to be lightweight and safe while also increasing cost-effectiveness for these mass-market vehicles. On the other hand, to accommodate the durability required of work vehicles, we plan to use a thick cold-rolled stainless steel alloy and ultra-strong glass for Cybertruck while employing our expertise in battery engineering to maintain excellent range.

Energy Generation and Storage

Energy Storage Products

We have an in-house engineering team that both designs our energy storage products themselves, and works with our residential, commercial and utility customers to design bespoke systems incorporating our products. Our team's expertise in electrical, mechanical, civil and software engineering enables us to create integrated energy storage solutions that meet the various and particular needs of our customers.

Solar Energy Systems

We also have an in-house team that designs a customized solar energy system or Solar Roof for each of our customers, including an integrated energy storage system when requested by the customer. We have developed software that simplifies and expedites the design process and optimizes the design to maximize the energy production of each system. This team completes a structural analysis of each building and produces a full set of structural design and electrical blueprints that contain the specifications for all system components. Additionally, this team specifies complementary mounting and grounding hardware where required.

Sales and Marketing

Historically, we have been able to generate significant media coverage of our company and our products, and we believe we will continue to do so. Such media coverage and word of mouth are the current primary drivers of our sales leads and have helped us achieve sales without traditional advertising and at relatively low marketing costs.

Automotive

Direct Sales

We market and sell our vehicles directly to customers using means that we believe will maximize our reach, improve the overall customer experience and maximize capital efficiency. Currently, our sales channels include our website and an international network of company-owned stores. In some states, we have also opened galleries to educate and inform customers about our products, but such locations do not actually transact in the sale of vehicles. We believe this infrastructure enables us to better control costs of inventory, manage warranty service and pricing, educate consumers about electric vehicles and charging, maintain and strengthen the Tesla brand, and obtain rapid customer feedback.

We reevaluate our sales strategy both globally and at a location-by-location level from time to time to optimize our current sales channels. Sales of vehicles in the automobile industry also tend to be cyclical in many markets, which may expose us to volatility from time to time.

Used Vehicle Sales

Our used vehicle business supports new vehicle sales by integrating the sale of a new Tesla vehicle with a customer's trade-in needs for their existing Tesla and non-Tesla vehicles. The Tesla and non-Tesla vehicles we acquire through trade-ins are subsequently remarketed, either directly by us or through third-parties. We also receive used Tesla vehicles to resell through lease returns and other sources.

Public Charging

We continue to build out our global Supercharger network for our customers' convenience, including to enable long-distance travel and urban ownership, which is a part of our strategy to remove a barrier to the broader adoption of electric vehicles caused by the perception of limited range. Each Tesla Supercharger is an industrial grade, high-speed charger designed to recharge a Tesla vehicle significantly more quickly than other charging options, and we continue to evolve our technology to allow for even faster charging times at lower cost to us. Where possible, we are co-locating Superchargers with our solar and energy storage systems to further reduce costs and promote renewable power. Supercharger stations typically are strategically placed along well-traveled routes and in dense city centers to allow Tesla vehicle owners the ability to enjoy quick, reliable and ubiquitous charging with convenient, minimal stops. Use of the Supercharger network is either free under certain sales programs or requires a competitive fee.

We also work with a wide variety of hospitality, retail, and public destinations, as well as businesses with commuting employees, to offer additional charging options for our customers. These Destination Charging and workplace locations deploy Tesla Wall Connectors to provide charging to Tesla vehicle owners who patronize or are employed at their businesses. We also work with single-family homeowners and multi-family residential entities to deploy home charging solutions in our communities.

Energy Generation and Storage

We market and sell our solar and energy storage products to individuals, commercial and industrial customers and utilities through a variety of channels.

In the U.S., we offer residential solar and energy storage products directly through our website, stores and galleries, as well as through our network of channel partners. Outside of the U.S., we use our international sales organization and a network of channel partners to market and sell these products for the residential market. We also sell Powerwall directly to utilities. In the case of products sold to such utilities or channel partners, such partners typically sell and install the product in customer homes.

We sell Powerpack and Megapack systems to commercial and utility customers through our international sales organization, which consists of experienced energy industry professionals in all of our target markets, as well as through our channel partner network. In certain jurisdictions, we also sell installed solar energy systems (with or without energy storage) to commercial customers through cash, lease and PPA transactions.

Service and Warranty**Automotive*****Service***

We provide service for our electric vehicles at our company-owned service locations and through an expanding fleet of Tesla Mobile Service technicians who provide services that do not require a vehicle lift remotely at customers' homes or other locations. Performing vehicle service ourselves provides us with the capability to identify problems, find solutions, and incorporate improvements faster, and optimize logistics and inventory for service parts better, than traditional automobile manufacturers. Our vehicles are also designed with the capability to wirelessly upload data to us via an on-board system with cellular connectivity, allowing us to diagnose and remedy many problems before ever looking at the vehicle.

Vehicle Limited Warranty and Extended Service Plans

We provide a manufacturer's warranty on all new and used Tesla vehicles. Each new vehicle has a four year or 50,000 mile New Vehicle Limited Warranty, subject to separate limited warranties for the supplemental restraint system, battery and drive unit, and body rust perforation. For the battery and drive unit on our current new Model S and Model X vehicles, we offer an eight year, 150,000 mile limited warranty, with minimum 70% retention of battery capacity over the warranty period. For the battery and drive unit on our current new Model 3 and Model Y vehicles, we offer an eight year or 100,000 mile limited warranty for our Standard or Standard Range Plus battery and an eight year or 120,000 mile limited warranty for our Long Range or Performance battery, with minimum 70% retention of battery capacity over the warranty period.

In addition to the New Vehicle Limited Warranty, we currently offer for Model S and Model X Extended Service plans for new vehicle in specified regions. The Extended Service plans cover the repair or replacement of vehicle parts for up to an additional four years or up to an additional 50,000 miles after the expiration of the New Vehicle Limited Warranty.

Energy Generation and Storage

Energy Storage Systems

We generally provide a 10-year “no defect” and “energy retention” warranty with every current Powerwall and a 15-year “no defect” and “energy retention” warranty with every current Powerpack or Megapack system. Pursuant to these energy retention warranties, we guarantee that the energy capacity of the applicable product will be at least a specified percentage (within a range up to 80%) of its nameplate capacity during specified time periods, depending on the product, battery pack size and/or region of installation, and subject to specified use restrictions or kWh throughputs caps. In addition, we offer certain extended warranties, which customers are able to purchase from us at the time they purchase an energy storage system, including a 20 year extended protection plan for Powerwall and a selection of 10 or 20 year performance guarantees for Powerpack and Megapack. In circumstances where we install a Powerwall or Powerpack system, we also provide certain warranties on our installation workmanship. All of the warranties for our energy storage systems are subject to customary limitations and exclusions.

Solar Energy Systems

For retrofit solar energy systems, we provide a workmanship warranty for up to 20 years from installation and a separate warranty against roof leaks. We also pass-through the inverter and module manufacturer warranties (typically 10 years and 25 years respectively). When we lease a retrofit solar energy system, we compensate the customer if their system produces less energy than guaranteed over a specified period. For the Solar Roof, we provide a warranty against defects for 25 years, a 25 year weatherization warranty and a power output warranty. For all systems (retrofit and Solar Roof) we also provide service and repair (either under warranty or for a fee) during the entire term of the customer relationship.

Financial Services

Automotive

Purchase Financing and Leases

We offer leasing and/or loan financing arrangements for our vehicles in certain jurisdictions in North America, Europe and Asia through various financial institutions. In certain international markets, we offer resale value guarantees to customers who purchase and finance their vehicles through one of our specified commercial banking partners, under which those customers have the option of selling their vehicles back to us at preset future dates, generally at the end of the terms of the applicable loans or financing programs, for pre-determined resale values. In certain markets, we also offer vehicle buyback guarantees to financial institutions, which may obligate us to repurchase the vehicles for pre-determined prices.

We also currently offer leasing directly through our local subsidiaries for Model S, Model X and Model 3 in the U.S. and for Model S and Model X in Canada.

Insurance

In August 2019, we launched an insurance product designed for our customers, which offers rates that are often better than other alternatives. This product is currently available in California, and we plan to expand both the markets in which we offer insurance products and our ability to offer such products, as part of our ongoing effort to decrease the total cost of ownership for our customers.

Energy Generation and Storage***Energy Storage Systems***

We currently offer a loan product to residential customers who purchase Powerwall together with a new solar energy system, and lease and PPA options to commercial customers who purchase a Powerpack system together with a new solar energy system. We intend to introduce financial services offerings for customers who purchase standalone energy storage products in the future.

Solar Energy Systems

We are an industry leader in offering innovative financing alternatives that allow our customers to take direct advantage of available tax credits and incentives to reduce the cost of owning a solar energy system through a solar loan, or to make the switch to solar energy with little to no upfront costs under a lease or PPA. Our solar loan offers third-party financing directly to a qualified customer to enable the customer to purchase and own a solar energy system. We are not a party to the loan agreement between the customer and the third-party lender, and the third-party lender has no recourse against us with respect to the loan. Our solar lease offers customers a fixed monthly fee, at rates that typically translate into lower monthly utility bills, and an electricity production guarantee. Our solar PPA charges customers a fee per kWh based on the amount of electricity produced by our solar energy systems. We monetize the customer payments we receive from our leases and PPAs through funds we have formed with investors. We also intend to introduce financial services offerings for our Solar Roof customers in the future.

Manufacturing

We manufacture our products and related components primarily at the Fremont Factory and at nearby facilities in the Bay Area, California; Gigafactory Nevada near Reno, Nevada; Gigafactory New York in Buffalo, New York; and Gigafactory Shanghai in China. We have also selected a site near Berlin, Germany to build a factory for the European market, which we refer to as Gigafactory Berlin.

Manufacturing Facilities in the Bay Area, California

We manufacture our vehicles, and certain parts and components that are critical to our intellectual property and quality standards, at our manufacturing facilities in the Bay Area in California, including the Fremont Factory, and other local manufacturing facilities. Our Bay Area facilities contain several manufacturing operations, including stamping, machining, casting, plastics, body assembly, paint operations, seat assembly, final vehicle assembly and end-of-line testing for our vehicles, as well as production of battery packs and drive units for Model S and Model X. Some major vehicle component systems are purchased from suppliers; however, we have a high level of vertical integration in our manufacturing processes at our Bay Area facilities.

Gigafactory Nevada

Gigafactory Nevada is a facility where we work together with our suppliers to integrate battery material, cell, module and battery pack production in one location. We use the battery packs manufactured at Gigafactory Nevada for Model 3, Model Y and our energy storage products. We also manufacture Model 3 and Model Y drive units at Gigafactory Nevada. Finally, the assembly of Megapack systems takes place at Gigafactory Nevada, allowing us to ship deployment-ready systems directly to customers.

We have designed Gigafactory Nevada to allow us access to high volumes of lithium-ion battery cells while achieving a significant reduction in the cost of our battery packs, and we have an agreement with Panasonic to partner with us on Gigafactory Nevada with investments in production equipment that it is using to manufacture and supply us with battery cells. Given its importance to the production of our vehicle and energy storage products, in particular Model 3, Model Y and Megapack, we continue to invest in Gigafactory Nevada to achieve additional production output there.

Gigafactory New York

We have primarily used our manufacturing facility in Buffalo, New York, which we refer to as Gigafactory New York, for the development and production of our Solar Roof and other solar products and components, energy storage components, and Supercharger components, and for other lessor-approved functions. In particular, our manufacturing operations at Gigafactory New York are increasing significantly as we ramp the production of the third generation of our Solar Roof there.

Gigafactory Shanghai

In December 2019, we commenced production of Model 3 vehicles at Gigafactory Shanghai, which we have established in order to increase the affordability of our vehicles for customers in local markets by reducing transportation and manufacturing costs and eliminating certain tariffs on vehicles imported into China from the U.S. At Gigafactory Shanghai, we have installed annual production capacity for 150,000 Model 3 vehicles that we believe we will eventually be able to push to actual rates of production in excess of such number, subject to local production of battery packs, which we began ramping there later than other processes. We have also commenced construction of the next phase of Gigafactory Shanghai to add Model Y manufacturing capacity at least equivalent to that for Model 3. Much of the investment in Gigafactory Shanghai has been and is expected to continue to be provided through local debt financing, including a RMB 9.0 billion (or the equivalent amount in U.S. dollars) fixed asset term facility and a RMB 2.25 billion (or the equivalent amount in U.S. dollars) working capital revolving facility that our subsidiary entered into in December 2019. We are supplementing such financing with limited direct capital expenditures by us, at a lower cost per unit of production capacity than that of Model 3 production at the Fremont Factory.

Other Manufacturing

Generally, we continue to expand production capacity at our existing facilities. We also intend to further increase cost-competitiveness in our significant markets by strategically adding local manufacturing, including at our planned Gigafactory Berlin.

Supply Chain

Our products use thousands of purchased parts that are sourced from hundreds of suppliers across the world. We have developed close relationships with vendors of key parts such as battery cells, electronics and complex vehicle assemblies. Certain components purchased from these suppliers are shared or are similar across many product lines, allowing us to take advantage of pricing efficiencies from economies of scale.

As is the case for most automotive companies, most of our procured components and systems are sourced from single suppliers. Certain key components we use have multiple available sources, and we work to qualify multiple suppliers for each such component where it is sensible to do so, in order to minimize production risks owing to disruptions in their supply. We also mitigate risk by maintaining safety stock for key parts and assemblies and die banks for components with lengthy procurement lead times.

Our products use various raw materials including aluminum, steel, cobalt, lithium, nickel and copper. Pricing for these materials is governed by market conditions and may fluctuate due to various factors outside of our control, such as supply and demand and market speculation. We currently believe that we have adequate access to raw materials supplies in order to meet the needs of our operations.

Governmental Programs, Incentives and Regulations

Globally, both the operation of our business by us and the ownership of our products by our customers are impacted by a number of government programs, incentives and other arrangements. Our business and products are also subject to a number of governmental regulations that vary among jurisdictions.

Programs and Incentives

California Alternative Energy and Advanced Transportation Financing Authority Tax Incentives

We have entered into multiple agreements over the past few years with the California Alternative Energy and Advanced Transportation Financing Authority (“CAEATFA”) that provide multi-year sales tax exclusions on purchases of manufacturing equipment that will be used for specific purposes, including the expansion and ongoing development of Model S, Model X, Model 3, Model Y and future electric vehicles and the expansion of electric vehicle powertrain production in California.

Gigafactory Nevada—Nevada Tax Incentives

In connection with the construction of Gigafactory Nevada, we have entered into agreements with the State of Nevada and Storey County in Nevada that provide abatements for sales, use, real property, personal property and employer excise taxes, discounts to the base tariff energy rates and transferable tax credits. These incentives are available for the applicable periods beginning on October 17, 2014 and ending on either June 30, 2024 or June 30, 2034 (depending on the incentive). Under these agreements, we were eligible for a maximum of \$195.0 million of transferable tax credits, subject to capital investments by us and our partners for Gigafactory Nevada of at least \$3.50 billion, which we exceeded during 2017, and specified hiring targets for Gigafactory Nevada, which we exceeded during 2018. As a result, as of December 31, 2018, we had earned the maximum amount of credits.

Gigafactory New York—New York State Investment and Lease

We have a lease through the Research Foundation for the State University of New York (the “SUNY Foundation”) for Gigafactory New York, which was constructed on behalf of the SUNY Foundation. Under the lease and a related research and development agreement, there continues to be, on behalf of the SUNY Foundation, installation of certain utilities and other improvements and acquisition of certain manufacturing equipment designated by us to be used at Gigafactory New York. The terms of such agreement require us to comply with a number of covenants, including required hiring and cumulative investment targets, which we have met to date as of the applicable measurement dates.

Gigafactory Shanghai—Lease and Land Use Rights

We have a lease arrangement with the local government of Shanghai for land use rights at Gigafactory Shanghai. Under the terms of the arrangement, we are required to meet a cumulative capital expenditure target and an annual tax revenue target starting at the end of 2023, which we believe will be attainable even if our actual vehicle production at Gigafactory Shanghai were far lower than the volumes we are forecasting.

Tesla Regulatory Credits

In connection with the production, delivery, placement into service and ongoing operation of our zero emission vehicles, charging infrastructure and solar systems in global markets, we have earned and will continue to earn various tradable regulatory credits. We have sold these credits, and will continue to sell future credits, to automotive companies and other regulated entities who can use the credits to comply with emission standards and other regulatory requirements. For example, under California’s Zero Emission Vehicle Regulation and those of states that have adopted California’s standard, vehicle manufacturers are required to earn or purchase credits, referred to as ZEV credits, for compliance with their annual regulatory requirements. These laws provide that automakers may bank or sell to other regulated parties their excess credits if they earn more credits than the minimum quantity required by those laws. Tesla also earns other types of saleable regulatory credits in the United States and abroad, including greenhouse gas, fuel economy, renewable energy, and clean fuels credits. Likewise, several U.S. states have adopted procurement requirements for renewable energy production. These requirements enable companies deploying solar energy to earn tradable credits known as Solar Renewable Energy Certificates (“SRECs”).

Energy Storage Systems—Incentives

The regulatory regime for energy storage projects is still under development. Nevertheless, there are various policies, incentives and financial mechanisms at the federal, state and local levels that support the adoption of energy storage. For example, energy storage systems that are charged using solar energy are eligible for the 26% tax credit in 2020 with a ramp down in 2021 and beyond under Section 48(a)(3) of the Internal Revenue Code, or the IRC, as described below. In addition, California and a number of other states have adopted procurement targets for energy storage, and behind the meter energy storage systems qualify for funding under the California Self Generation Incentive Program.

The Federal Energy Regulatory Commission (“FERC”) has also taken steps to enable the participation of energy storage in wholesale energy markets. For example, in late 2016, FERC issued a final rule, Order No. 821, to further break down barriers preventing energy storage from fully participating in wholesale energy markets. Order 821 is currently under review before the U.S. Court of Appeals for the D.C. Circuit.

Solar Energy Systems—Government and Utility Programs and Incentives

U.S. federal, state and local governments have established various policies, incentives and financial mechanisms to reduce the cost of solar energy and to accelerate the adoption of solar energy. These incentives include tax credits, cash grants, tax abatements and rebates.

The federal government currently provides an uncapped investment tax credit (“ITC”) under two sections of the IRC: Section 48 and Section 25D. Section 48(a)(3) of the IRC allows a taxpayer to claim a credit of 26% of qualified expenditures for a commercial solar energy system that commences construction by December 31, 2020. The credit then declines to 22% in 2021 and a permanent 10% thereafter. We claim the Section 48 commercial credit when available for both our residential and commercial projects, based on ownership of the solar energy system. The federal government also provides accelerated depreciation for eligible commercial solar energy systems. Section 25D of the IRC allows a homeowner-taxpayer to claim a credit of 26% of qualified expenditures for a residential solar energy system owned by the homeowner that is placed in service by December 31, 2020. The credit then declines to 22% in 2021 and is scheduled to expire thereafter. Customers who purchase their solar energy systems for cash or through our solar loan offering are eligible to claim the Section 25D investment tax credit.

In addition to the federal ITC, many U.S. states offer personal and corporate tax credits and incentives for solar energy systems.

Regulations***Vehicle Safety and Testing***

Our vehicles are subject to, and comply with or are otherwise exempt from, numerous regulatory requirements established by the National Highway Traffic Safety Administration (“NHTSA”), including all applicable United States Federal Motor Vehicle Safety Standards (“FMVSS”). Our vehicles fully comply with all applicable FMVSSs without the need for any exemptions, and we expect future Tesla vehicles to either fully comply or comply with limited exemptions related to new technologies. Additionally, there are regulatory changes being considered for several FMVSS, and while we anticipate compliance, there is no assurance until final regulation changes are enacted.

As a manufacturer, we must self-certify that our vehicles meet all applicable FMVSS, as well as the NHTSA bumper standard, or otherwise are exempt, before the vehicles can be imported or sold in the U.S. Numerous FMVSS apply to our vehicles, such as crash-worthiness requirements, crash avoidance requirements, and electric vehicle requirements. We are also required to comply with other federal laws administered by NHTSA, including the CAFE standards, Theft Prevention Act requirements, consumer information labeling requirements, Early Warning Reporting requirements regarding warranty claims, field reports, death and injury reports and foreign recalls, and owner’s manual requirements.

The Automobile Information and Disclosure Act requires manufacturers of motor vehicles to disclose certain information regarding the manufacturer’s suggested retail price, optional equipment and pricing. In addition, this law allows inclusion of city and highway fuel economy ratings, as determined by EPA, as well as crash test ratings as determined by NHTSA if such tests are conducted.

Our vehicles sold outside of the U.S. are subject to similar foreign safety, environmental and other regulations. Many of those regulations are different from those applicable in the U.S. and may require redesign and/or retesting. The European Union has established new rules regarding additional compliance oversight that are scheduled to commence in 2020, and there is also regulatory uncertainty related to the United Kingdom's withdrawal from the European Union. These changes could impact the rollout of new vehicle features in Europe.

Self-Driving

There are no federal U.S. regulations pertaining to the safety of self-driving vehicles; however, NHTSA has established recommended guidelines. Certain U.S. states have legal restrictions on self-driving vehicles, and many other states are considering them. This patchwork increases the legal complexity for our vehicles. In Europe, certain vehicle safety regulations apply to self-driving braking and steering systems, and certain treaties also restrict the legality of certain higher levels of self-driving vehicles. Self-driving laws and regulations are expected to continue to evolve in numerous jurisdictions in the U.S. and foreign countries, and may create restrictions on self-driving features that we develop.

Automobile Manufacturer and Dealer Regulation

State laws regulate the manufacture, distribution, sale and service of automobiles, and generally require motor vehicle manufacturers and dealers to be licensed in order to sell vehicles directly to consumers in the state. As we open additional Tesla stores and service centers, we secure dealer licenses (or their equivalent) and engage in sales activities to sell our vehicles directly to consumers. Certain states do not permit automobile manufacturers to be licensed as dealers or to act in the capacity of a dealer, or otherwise restrict a manufacturer's ability to deliver or service vehicles. To sell vehicles to residents of states where we are not licensed as a dealer, we generally conduct the transfer of title out of the state. In such states, we have opened "galleries" that serve an educational purpose and where the title transfer may not occur.

As we expand our retail footprint in the U.S., some automobile dealer trade associations have both challenged the legality of our operations in court and used administrative and legislative processes to attempt to prohibit or limit our ability to operate existing stores or expand to new locations. We expect that the dealer associations will continue to mount challenges to our business model. In addition, we expect the dealer associations to actively lobby state licensing agencies and legislators to interpret existing laws or enact new laws in ways not favorable to Tesla's ownership and operation of its own retail and service locations, and we intend to actively fight any such efforts to limit our ability to sell and service our own vehicles.

Battery Safety and Testing

Our battery pack conforms to mandatory regulations that govern transport of "dangerous goods," defined to include lithium-ion batteries, which may present a risk in transportation. The regulations vary by mode of shipping transportation, such as by ocean vessel, rail, truck, or air. We have completed the applicable transportation tests for our battery packs, demonstrating our compliance with applicable regulations.

We use lithium-ion cells in our high voltage battery packs in our vehicles and energy storage products. The use, storage, and disposal of our battery packs is regulated under federal law. We have agreements with third party battery recycling companies to recycle our battery packs and we are also developing our own recycling technology.

Solar Energy—General

We are not a "regulated utility" in the U.S., although we are subject to certain state and federal regulations applicable to solar and battery storage providers. To operate our systems, we obtain interconnection agreements from the utilities. In most cases, interconnection agreements are standard form agreements that have been pre-approved by the public utility commission or other regulatory body.

Sales of electricity and non-sale equipment leases by third parties, such as our leases, PPAs and subscription agreements, face regulatory challenges in some states and jurisdictions.

Solar Energy—Net Metering

Most states in the U.S. have a regulatory policy known as net energy metering, or net metering, available to solar customers. Net metering typically allows solar customers to interconnect their on-site solar energy systems to the utility grid and offset their utility electricity purchases by receiving a bill credit for excess energy generated by their solar energy system that is exported to the grid. In certain jurisdictions, regulators or utilities have reduced or eliminated the benefit available under net metering, or have proposed to do so.

Solar Energy—Mandated Renewable Capacity

Many states also have adopted procurement requirements for renewable energy production, such as an enforceable renewable portfolio standard, or RPS, or other policies that require covered entities to procure a specified percentage of total electricity delivered to customers in the state from eligible renewable energy sources, such as solar energy systems. In SREC state markets, the RPS requires electricity suppliers to secure a portion of their electricity from solar generators. The SREC program provides a means for the generation of SRECs, which can then be sold separately from the energy produced to covered entities who surrender the SRECs to the state to prove compliance with the state's renewable energy mandate.

Competition**Automotive**

The worldwide automotive market is highly competitive and we expect it will become even more competitive in the future as we introduce additional vehicles in a broader cross-section of the passenger and commercial vehicle market and expand our vehicles' capabilities.

We believe that our vehicles compete in the market both based on their traditional segment classification as well as based on their propulsion technology. For example, Model S and Model X compete primarily with premium sedans and premium SUVs and Model 3 and Model Y compete with small to medium-sized sedans and compact SUVs, which are extremely competitive markets. Competing products typically include internal combustion vehicles from more established automobile manufacturers; however, many established and new automobile manufacturers have entered or have announced plans to enter the alternative fuel vehicle market. Overall, we believe these announcements and vehicle introductions promote the development of the alternative fuel vehicle market by highlighting the attractiveness of alternative fuel vehicles, particularly those fueled by electricity, relative to the internal combustion vehicle. Many major automobile manufacturers have electric vehicles available today in major markets including the U.S., China and Europe, and other current and prospective automobile manufacturers are also developing electric vehicles. In addition, several manufacturers offer hybrid vehicles, including plug-in versions.

Our vehicles also compete in the market based on the compelling user experience that they offer. We believe that a key factor in our success will be our Autopilot and FSD technologies that currently enable the driver-assistance features in our vehicles, and in which we are making significant strides through our proprietary and powerful FSD computer and remotely updateable artificial intelligence software. Ultimately, while we are subject to regulatory constraints over which we have no control, our goal is a fully autonomously-driven future that improves safety and provides our customers with convenience and additional income through participation in an autonomous Tesla ride-hailing network. This network, which will also include our own fleet of vehicles, will also allow us to access a new customer base even as modes of transportation evolve. Finally, our vehicles offer unparalleled in-vehicle entertainment features, currently including Internet search, music services, passenger karaoke, and parked video streaming and gaming.

Energy Generation and Storage***Energy Storage Systems***

The market for energy storage products is also highly competitive. Established companies, such as AES Energy Storage, Siemens, LG Chem and Samsung, as well as various emerging companies, have introduced products that are similar to our product portfolio. There are several companies providing individual components of energy storage systems (such as cells, battery modules, and power electronics) as well as others providing integrated systems. We compete with these companies based on price, energy density and efficiency. We believe that the specifications of our products, our strong brand, and the modular, scalable nature of our Powerpack and Megapack products give us a competitive advantage when marketing our products.

Solar Energy Systems

The primary competitors to our solar energy business are the traditional local utility companies that supply energy to our potential customers. We compete with these traditional utility companies primarily based on price, predictability of price and the ease by which customers can switch to electricity generated by our solar energy systems. We also compete with solar energy companies that provide products and services similar to ours. Many solar energy companies only install solar energy systems, while others only provide financing for these installations. In the residential solar energy system installation market, our primary competitors include Vivint Solar Inc., Sunrun Inc., Trinity Solar, SunPower Corporation, and many smaller local solar companies.

The electricity produced by solar installations still represents a small fraction of total U.S. electricity generation. With tens of millions of single-family homes and businesses in our primary service territories, and many more in other locations, we have a large opportunity to expand and grow this business as we make our retrofit installations more accessible and ramp our innovative Solar Roof. We also believe that residential solar energy generation is gaining favorable regulatory momentum, as exemplified in part by the state of California recently requiring that new homes be built with solar generation starting in 2020.

Intellectual Property

We place a strong emphasis on our innovative approach and proprietary designs which bring intrinsic value and uniqueness to our product portfolio. As part of our business, we seek to protect the underlying intellectual property rights of these innovations and designs such as with respect to patents, trademarks, copyrights, trade secrets and other measures, including through employee and third party nondisclosure agreements and other contractual arrangements. For example, we place a high priority on obtaining patents to provide the broadest and strongest possible protection to enable our freedom to operate our innovations and designs within our products and technologies in the electric vehicle market as well as to protect and defend our product portfolio. We have also adopted a patent policy in which we irrevocably pledged that we will not initiate a lawsuit against any party for infringing our patents through activity relating to electric vehicles or related equipment for so long as such party is acting in good faith. We made this pledge in order to encourage the advancement of a common, rapidly-evolving platform for electric vehicles, thereby benefiting ourselves, other companies making electric vehicles, and the world.

Employees

As of December 31, 2019, Tesla, Inc. had 48,016 full-time employees. To date, we have not experienced any work stoppages, and we consider our relationship with our employees to be good.

Available Information

We file or furnish periodic reports and amendments thereto, including our Annual Reports on Form 10-K, our Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, proxy statements and other information with the Securities and Exchange Commission ("SEC"). In addition, the SEC maintains a website (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically. Our website is located at www.tesla.com, and our reports, amendments thereto, proxy statements and other information are also made available, free of charge, on our investor relations website at ir.tesla.com as soon as reasonably practicable after we electronically file or furnish such information with the SEC. The information posted on our website is not incorporated by reference into this Annual Report on Form 10-K.

ITEM 1A. RISK FACTORS

You should carefully consider the risks described below together with the other information set forth in this report, which could materially affect our business, financial condition and future results. The risks described below are not the only risks facing our company. Risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition and operating results.

Risks Related to Our Business and Industry

We have experienced in the past, and may experience in the future, delays or other complications in the design, manufacture, launch, and production ramp of our vehicles, energy products, and product features, or may not realize our manufacturing cost targets, which could harm our brand, business, prospects, financial condition and operating results.

We have previously experienced launch and production ramp delays or other complications in connection with new vehicle models such as Model S, Model X and Model 3, and new vehicle features such as the all-wheel drive dual motor drivetrain on Model S and the second version of our Autopilot hardware. For example, we encountered unanticipated supply chain constraints that led to initial delays in producing Model X and an isolated supplier limitation in the manufacture of Model 3. Similarly, during our initial Model 3 production ramp, we had challenges ramping fully automated processes, such as portions of the battery module assembly line, material flow system and the general assembly line, which we addressed by reducing the levels of automation and introducing semi-automated or manual processes. In addition, we have used a number of new manufacturing technologies, techniques and processes for our vehicles, such as aluminum spot welding systems and high-speed blow forming of certain difficult to stamp vehicle parts, and we may introduce new processes in the future. We have also introduced unique design features in our vehicles with different manufacturing challenges, such as large display screens, dual motor drivetrain, hardware for our Autopilot and FSD features and falcon-wing doors. There is no guarantee that we will be able to successfully and timely introduce and scale any such new processes or features.

In particular, our future business depends in large part on the high-volume production of Model 3 and Model Y, which we believe are our vehicles with the largest markets. We have limited experience to date in manufacturing Model 3 at high volumes and continuously increasing its production rates, particularly across multiple vehicle manufacturing facilities, which we commenced in the fourth quarter of 2019 with Gigafactory Shanghai coming online. In order to be successful, we will need to implement, maintain and/or ramp efficient and cost-effective manufacturing capabilities, processes and supply chains and achieve the design tolerances, high quality and maximum output rates we have planned, including at Gigafactory Shanghai, and for Model Y, which we commenced manufacturing at the Fremont Factory in the first quarter of 2020. Bottlenecks such as those we have experienced in the past with new product ramps and other unexpected challenges may also arise as we ramp production, and it will be important that we address them promptly while continuing to reduce our manufacturing costs. If we are not successful in doing so, or if we experience issues with our ongoing manufacturing process improvements and cost-down efforts, we could face delays in establishing and/or sustaining our Model 3 and Model Y ramps or be unable to meet our related cost and profitability targets.

Moreover, we will need to hire, train and compensate skilled employees to operate high-volume production facilities to support our vehicle ramp at the Fremont Factory and Gigafactory Shanghai, as well as at Gigafactory Nevada to support the manufacture of battery packs and drive units for certain of our vehicles. Finally, because our vehicle models, in particular Model 3 and Model Y, may share certain parts, suppliers or production facilities with each other, the volume or efficiency of production with respect to one model may impact also the production of other models or lead to bottlenecks that impact the production of all models.

We may also experience similar future delays or other complications in launching and/or ramping production of new vehicles, such as Tesla Semi, Cybertruck and the new Tesla Roadster, our energy storage products and the Solar Roof, as well as future features and services such as new Autopilot or FSD features and the autonomous Tesla ride-hailing network. Likewise, we may encounter delays with the design, construction and regulatory or other approvals necessary to build and bring online future manufacturing facilities, including our planned Gigafactory Berlin in Germany.

Any significant delay or other complication in the production ramp of our current products or the development, manufacture, launch and production ramp of our future products, features and services, including complications associated with expanding our production capacity and supply chain or obtaining or maintaining related regulatory approvals, or inability to manage such ramps cost-effectively, could materially damage our brand, business, prospects, financial condition and operating results.

We may be unable to meet our growing product sales, delivery and installation plans and vehicle servicing and charging network needs, or accurately project and manage this growth internationally, any of which could harm our business and prospects.

Concurrent with developing, launching and ramping our products, our success will depend on our ability to continue to significantly increase their sales, deliveries, installations and servicing worldwide, while allocating our available resources among multiple products simultaneously. As we expand globally, we will also need to ensure we are in compliance with any regulatory requirements applicable to the sale, installation and service of our products, the sale of electricity generated through our solar energy systems and operation of Superchargers in various jurisdictions, which could take considerable time and expense. These plans require significant cash investments and management resources and there is no guarantee that they will ultimately generate additional sales or installations of our products.

We continuously evaluate, and as appropriate evolve, our retail operations and product offerings in order to maximize our reach and optimize our costs, vehicle line-up and model differentiation, and purchasing experience. However, there is no guarantee that each step in our evolving strategy will be perceived as intended by prospective customers accustomed to more traditional sales models. In particular, we are targeting with Model 3 and Model Y a global mass demographic with a broad range of potential customers, in which we have limited experience projecting demand and pricing our products. Until we ramp local production at Gigafactory Shanghai and in the future at Gigafactory Berlin, we will have to contend with predominantly single-factory vehicle production at the Fremont Factory for numerous international variants. If our specific demand expectations for these variants prove inaccurate, we may not be able to timely generate sales matched to the specific vehicles that we produce in the same timeframe or that are commensurate with our operations in a given region, which may negatively impact our deliveries and operating results in a particular period. Likewise, as we develop and grow our energy storage product and solar business worldwide, our success will depend on our ability to correctly forecast demand for our products in different markets.

Moreover, because we do not have independent dealer networks, we are responsible for delivering all of our vehicles to our customers and meeting their vehicle servicing needs. While we have substantially implemented and improved many aspects of our delivery and service operations, we still have relatively limited experience with, and may face difficulties in, such deliveries and servicing at high volumes, particularly in international markets as we expand. For example, significant transit time may be required to transport vehicles in volume into international markets, and we also saw challenges in initially ramping our logistical channels in China and Europe as we delivered Model 3 there for the first time in the first quarter of 2019. To accommodate growing volumes, we have deployed a number of delivery models, such as deliveries to customers' homes and workplaces, some of which have not been previously tested at scale and in different geographies and may not ultimately be successful. Likewise, because of our unique expertise with our vehicles, we recommend that our vehicles be serviced by our service centers, Mobile Service technicians or certain authorized professionals that we have specifically trained and equipped. If we experience delays in adding such servicing capacity or experience unforeseen issues with the reliability of our vehicles, particular higher-volume and newer additions to our fleet such as Model 3 and Model Y, it could overburden our servicing capabilities and parts inventory. Finally, the increasing number of Tesla vehicles also requires us to continue to rapidly increase the number of our Supercharger stations and connectors throughout the world.

We are also expanding our installation capabilities for the Solar Roof as we continue its manufacturing ramp by training both our own personnel and third party installers. If we are not successful in growing this overall installation capability to keep pace with our increasing production, or if we experience unforeseen delays in the production ramp or inaccurately forecast demand for the Solar Roof, our operating results may be negatively impacted.

There is no assurance that we will be able to ramp up business to meet our sales, delivery, servicing, charging and installation targets globally, that our projections on which such targets are based will prove accurate, or that the pace of growth or coverage of our customer infrastructure network will meet customer expectations. Moreover, we may not be successful in undertaking this global expansion if we are unable to avoid cost overruns and other unexpected operating costs, adapt our products and conduct our operations to meet local requirements and regulations, implement required local infrastructure, systems and processes, and find and hire a significant number of additional sales, service, electrical installation, construction and administrative personnel. If we fail to manage our growth effectively, it could result in negative publicity and damage to our brand and have a material adverse effect on our business, prospects, financial condition and operating results.

Our future growth and success is dependent upon consumers' willingness to adopt electric vehicles and specifically our vehicles. We operate in the automotive industry, which is generally susceptible to cyclical and volatility.

Our growth is highly dependent upon the worldwide adoption by consumers of alternative fuel vehicles in general and electric vehicles in particular. Although we have successfully grown demand for our vehicles thus far, there is no guarantee of such future demand, or that our vehicles will not compete with one another in the market. Moreover, the target demographics for our vehicles, in particular the mass market demographic for Model 3 and Model Y, are highly competitive. If the market for electric vehicles in general and Tesla vehicles in particular does not develop as we expect, develops more slowly than we expect, or if demand for our vehicles decreases in our markets, our business, prospects, financial condition and operating results could be harmed.

We have only relatively recently achieved high-volume production of vehicles, and are still at an earlier stage and have limited resources relative to our competitors. Moreover, the market for alternative fuel vehicles is rapidly evolving. As a result, the market for our vehicles could be affected by numerous factors, such as:

- perceptions about electric vehicle features, quality, safety, performance and cost;
- perceptions about the limited range over which electric vehicles may be driven on a single battery charge;
- competition, including from other types of alternative fuel vehicles, plug-in hybrid electric vehicles and high fuel-economy internal combustion engine vehicles;
- volatility in the cost of oil and gasoline;
- government regulations and economic incentives;
- access to charging facilities; and
- concerns about our future viability.

In addition, sales of vehicles in the automotive industry tend to be cyclical in many markets, which may expose us to increased volatility, especially as we expand and adjust our operations and retail strategies. Specifically, it is uncertain as to how such macroeconomic factors will impact us as a company that has been experiencing growth and increasing market share in an industry that has globally been experiencing a recent decline in sales.

We are dependent on our suppliers, the majority of which are single-source suppliers, and the inability of these suppliers to deliver necessary components of our products according to our schedule and at prices, quality levels and volumes acceptable to us, or our inability to efficiently manage these components, could have a material adverse effect on our financial condition and operating results.

Our products contain thousands of purchased parts that we source globally from hundreds of direct suppliers. We attempt to mitigate our supply chain risk by entering into long-term agreements where it is practical and beneficial to do so, including agreements we entered into with Panasonic to be our manufacturing partner and supplier; qualifying and obtaining components from multiple sources where sensible, such as the PV panels for our retrofit solar installations that we purchase from a variety of suppliers; and maintaining safety stock for key parts and assemblies and die banks for components with lengthy procurement lead times. However, our limited, and in most cases single-source, supply chain exposes us to multiple potential sources of delivery failure or component shortages for our production, such as those which we experienced in 2012 and 2016 in connection with our slower-than-planned Model S and Model X ramps. Furthermore, unexpected changes in business conditions, materials pricing, labor issues, wars, governmental changes, tariffs, natural disasters such as the March 2011 earthquakes in Japan, health epidemics, and other factors beyond our and our suppliers' control could also affect these suppliers' ability to deliver components to us on a timely basis. The loss of any supplier, particularly a single- or limited-source supplier, or the disruption in the supply of components from our suppliers, could lead to product design changes, production delays of key revenue-generating products, idle manufacturing facilities, and potential loss of access to important technology and parts for producing, servicing and supporting our products, any of which could result in negative publicity, damage to our brand and a material and adverse effect on our business, prospects, financial condition and operating results.

We may also be impacted by changes in our supply chain or production needs. We have experienced in the past, and may experience in the future, cost increases from certain of our suppliers in order to meet our quality targets and development timelines as well as due to our design changes. Likewise, any significant increases in our production, such as for Model 3 and our expectations for Model Y, has required and/or may in the future require us to procure additional components in a short amount of time. Our suppliers may not ultimately be able to sustainably and timely meet our cost, quality and volume needs, requiring us to replace them with other sources. While we believe that we will be able to secure additional or alternate sources of supply for most of our components in a relatively short time frame, there is no assurance that we will be able to do so or develop our own replacements for certain highly customized components. Additionally, we continuously negotiate with existing suppliers to obtain cost reductions and avoid unfavorable changes to terms, seek new and less expensive suppliers for certain parts, and attempt to redesign certain parts to make them less expensive to produce. If we are unsuccessful in our efforts to control and reduce supplier costs, our operating results will suffer.

Outside of the U.S., we have limited manufacturing experience and we may experience issues or delays increasing the level of localized procurement at our Gigafactory Shanghai and in the future at our Gigafactory Berlin. Furthermore, as the scale of our vehicle production increases, we will need to accurately forecast, purchase, warehouse and transport components to our manufacturing facilities and servicing locations internationally and at much higher volumes. If we are unable to accurately match the timing and quantities of component purchases to our actual needs or successfully implement automation, inventory management and other systems to accommodate the increased complexity in our supply chain, we may incur unexpected production disruption, storage, transportation and write-off costs, which could have a material adverse effect on our financial condition and operating results.

Any problems or delays in expanding Gigafactory Nevada or ramping and maintaining operations there could negatively affect the production and profitability of our products, such as Model 3, Model Y and our energy storage products. In addition, the battery cells produced there store large amounts of energy.

To lower the cost of cell production and produce cells in high volume, we have vertically integrated the production of lithium-ion cells at Gigafactory Nevada, where we also manufacture battery packs and drive units for certain vehicles and energy storage products and assemble our Megapack product. Production of lithium-ion cells at Gigafactory Nevada began in 2017, and we have no other direct experience in the production of lithium-ion cells. Given the size and complexity of this undertaking, it is possible that future events could result in issues or delays in further ramping our products and expanding production output at Gigafactory Nevada.

In order to achieve our volume and gross margin targets for our vehicles and energy storage products, we must continue to sustain and ramp significant cell production at Gigafactory Nevada, which, among other things, requires Panasonic to successfully operate and further ramp its cell production lines at significant volumes. Although Panasonic has a long track record of producing high-quality cells at significant volume at its factories in Japan, it has relatively limited experience with cell production at Gigafactory Nevada. In addition, we produce several components for Model 3 and Model Y, such as battery modules incorporating the lithium-ion cells produced by Panasonic and drive units (including to support Gigafactory Shanghai production), at Gigafactory Nevada. Some of the manufacturing lines for such components took longer than anticipated to ramp to their full capacity. While we have largely overcome this bottleneck after deploying multiple semi-automated lines and improving our original lines, additional bottlenecks may arise as we continue to increase the production rate and introduce new lines. If we are unable to maintain Gigafactory Nevada production, ramp output additionally over time as needed, and do so cost-effectively, or if we or Panasonic are unable to hire and retain a substantial number of highly skilled personnel, our ability to supply battery packs or other components for Model 3, Model Y and our other products could be negatively impacted, which could negatively affect our brand and harm our business, prospects, financial condition and operating results.

In addition, the high volumes of lithium-ion cells and battery modules and packs manufactured at Gigafactory Nevada are stored and recycled at our various facilities. Any mishandling of battery cells may cause disruption to the operation of such facilities. While we have implemented safety procedures related to the handling of the cells, there can be no assurance that a safety issue or fire related to the cells would not disrupt our operations. Such disruptions or issues could negatively affect our brand and harm our business, prospects, financial condition and operating results.

Any issues or delays in meeting our projected timelines, costs and production at or funding the ramp of Gigafactory Shanghai, or any difficulties in generating and maintaining local demand for vehicles manufactured there, could adversely impact our business, prospects, operating results and financial condition.

As part of our continuing work to increase production of our vehicles on a sustained basis, and in order to make them affordable in international markets by accessing local supply chains and workforces, we have established Gigafactory Shanghai in China. Currently, we have installed annual production capacity for 150,000 Model 3 vehicles there that we believe we will eventually be able to push to actual rates of production in excess of such number, and we have commenced construction of the next phase of Gigafactory Shanghai to add Model Y manufacturing capacity at least equivalent to that for Model 3. The ramp and further expansion of Gigafactory Shanghai are subject to a number of uncertainties inherent in all new manufacturing operations, including ongoing compliance with regulatory requirements, maintenance of operational licenses and approvals for additional expansion, potential supply chain constraints, hiring, training and retention of qualified employees, and the pace of bringing production equipment and processes online with the capability to manufacture high-quality units at scale. We have limited experience to date with operating manufacturing facilities abroad, and only recently began to sell Model 3 in China. If we experience any issues or delays in meeting our projected timelines, costs, capital efficiency and production capacity for Gigafactory Shanghai, or in maintaining and complying with the terms of local debt financing that we intend will largely fund it, or in generating and maintaining demand locally for the vehicles we manufacture at Gigafactory Shanghai, our business, prospects, operating results and financial condition could be adversely impacted.

In particular, local manufacturing is critical to our expansion and sales in China, which is the largest market for electric vehicles in the world. Our vehicle sales in China have been negatively impacted in the past by certain tariffs on automobiles manufactured in the U.S., such as our vehicles, and our costs for producing our vehicles in the U.S. have also been affected by import duties on certain components sourced from China. If we are not able to successfully and timely ramp Gigafactory Shanghai, we may continue to be exposed to the impact of such unfavorable tariffs, duties or costs to our detriment compared to locally-based competitors.

We face risks associated with our international operations, including unfavorable and uncertain regulatory, political, economic, tax and labor conditions, and with establishing ourselves in new markets, all of which could harm our business.

We have a global footprint with domestic and international operations and subsidiaries. Accordingly, we are subject to a variety of legal, political and regulatory requirements and social, environmental and economic conditions over which we have little control. For example, we may be impacted by trade policies, environmental conditions, political uncertainty and economic cycles involving geographic regions where we have significant operations, which are inherently unpredictable. We are subject to a number of risks associated in particular with international business activities that may increase our costs, impact our ability to sell our products and require significant management attention. These risks include conforming our products to various international regulatory and safety requirements as well as charging and other electric infrastructures, organizing local operating entities, difficulty in establishing, staffing and managing foreign operations, challenges in attracting customers, foreign government taxes, regulations and permit requirements, our ability to enforce our contractual rights, trade restrictions, customs regulations, tariffs and price or exchange controls, and preferences of foreign nations for domestically manufactured products.

Increases in costs, disruption of supply or shortage of materials, in particular for lithium-ion cells, could harm our business.

We may experience increases in the cost of or a sustained interruption in the supply or shortage of materials. Any such increase, supply interruption or shortage could materially and negatively impact our business, prospects, financial condition and operating results. We use various materials in our business including aluminum, steel, lithium, nickel, copper and cobalt, as well as lithium-ion cells from suppliers. The prices for these materials fluctuate, and their available supply may be unstable, depending on market conditions and global demand for these materials, including as a result of increased production of electric vehicles and energy storage products by our competitors, and could adversely affect our business and operating results. For instance, we are exposed to multiple risks relating to lithium-ion cells. These risks include:

- an increase in the cost, or decrease in the available supply, of materials used in the cells;
- disruption in the supply of cells due to quality issues or recalls by battery cell manufacturers or any issues that may arise with respect to cells manufactured at our own facilities; and
- fluctuations in the value of any foreign currencies in which battery cell and related raw material purchases are or may be denominated, such as the Japanese yen, against the U.S. dollar.

Our business is dependent on the continued supply of battery cells for the battery packs used in our vehicles and energy storage products. While we believe several sources of the battery cells are available for such battery packs, and expect to eventually rely substantially on battery cells manufactured at our own facilities, we have to date fully qualified only a very limited number of suppliers for the cells used in such battery packs and have very limited flexibility in changing cell suppliers. Any disruption in the supply of battery cells from such suppliers could disrupt production of our vehicles and of the battery packs we produce for energy products until such time as a different supplier is fully qualified. Furthermore, fluctuations or shortages in petroleum and other economic conditions may cause us to experience significant increases in freight charges and material costs. Substantial increases in the prices for our materials or prices charged to us, such as those charged by battery cell suppliers, would increase our operating costs, and could reduce our margins if we cannot recoup the increased costs through increased vehicle prices. Any attempts to increase product prices in response to increased material costs could result in cancellations of orders and reservations and therefore materially and adversely affect our brand, image, business, prospects and operating results.

If our vehicles or other products that we sell or install fail to perform as expected, our ability to develop, market and sell our products and services could be harmed.

If our vehicles or our energy products contain defects in design and manufacture that cause them not to perform as expected or that require repair, or certain features of our vehicles such as new Autopilot or FSD features take longer than expected to become enabled, are legally restricted or become subject to onerous regulation, our ability to develop, market and sell our products and services could be harmed. For example, the operation of our vehicles is highly dependent on software, which is inherently complex and may contain latent defects and errors or be subject to external attacks. Issues experienced by vehicle customers have included those related to the software for the 17 inch display screen, as well as the panoramic roof and the 12-volt battery in the Model S and the seats and doors in the Model X. Although we attempt to remedy any issues we observe in our products as effectively and rapidly as possible, such efforts may not be timely, may hamper production or may not be to the satisfaction of our customers. While we have performed extensive internal testing on the products we manufacture, we currently have a limited frame of reference by which to evaluate detailed long-term quality, reliability, durability and performance characteristics of our battery packs, powertrains, vehicles and energy storage products. There can be no assurance that we will be able to detect and fix any defects in our products prior to their sale to or installation for customers.

Any product defects, delays or legal restrictions on product features, or other failure of our products to perform as expected, could harm our reputation and result in delivery delays, product recalls, product liability claims, breach of warranty claims, and significant warranty and other expenses, and could have a material adverse impact on our business, financial condition, operating results and prospects.

We may become subject to product liability claims, which could harm our financial condition and liquidity if we are not able to successfully defend or insure against such claims.

Although we design our vehicles to be the safest vehicles on the road, product liability claims, even those without merit, could harm our business, prospects, operating results and financial condition. The automobile industry in particular experiences significant product liability claims and we face inherent risk of exposure to claims in the event our vehicles do not perform or are claimed to not have performed as expected. As is true for other automakers, our vehicles have been involved and we expect in the future will be involved in crashes resulting in death or personal injury, and such crashes where Autopilot or FSD features are engaged are the subject of significant public attention. We have experienced and we expect to continue to face claims arising from or related to misuse or claimed failures of new technologies that we are pioneering, including Autopilot and FSD features in our vehicles. In addition, the battery packs that we produce make use of lithium-ion cells. On rare occasions, lithium-ion cells can rapidly release the energy they contain by venting smoke and flames in a manner that can ignite nearby materials as well as other lithium-ion cells. While we have designed the battery pack to passively contain any single cell's release of energy without spreading to neighboring cells, there can be no assurance that a field or testing failure of our vehicles or other battery packs that we produce will not occur, in particular due to a high-speed crash, which could subject us to lawsuits, product recalls or redesign efforts, all of which would be time consuming and expensive.

Moreover, as our solar energy systems and energy storage products generate and store electricity, they have the potential to cause injury to people or property. A successful product liability claim against us could require us to pay a substantial monetary award. Our risks in this area are particularly pronounced given the relatively limited number of vehicles and energy storage products delivered to date and limited field experience of our products. Moreover, a product liability claim could generate substantial negative publicity about our products and business and could have a material adverse effect on our brand, business, prospects and operating results. In most jurisdictions, we generally self-insure against the risk of product liability claims for vehicle exposure, meaning that any product liability claims will likely have to be paid from company funds, not by insurance.

The markets in which we operate are highly competitive, and we may not be successful in competing in these industries. We currently face competition from new and established domestic and international competitors and expect to face competition from others in the future, including competition from companies with new technology.

The worldwide automotive market, particularly for alternative fuel vehicles, is highly competitive today and we expect it will become even more so in the future. There is no assurance that our vehicles will be successful in the respective markets in which they compete. A significant and growing number of established and new automobile manufacturers, as well as other companies, have entered or are reported to have plans to enter the alternative fuel vehicle market, including hybrid, plug-in hybrid and fully electric vehicles, as well as the market for self-driving technology and applications. In some cases, such competitors have announced an intention to produce electric vehicles exclusively at some point in the future. Most of our current and potential competitors have significantly greater financial, technical, manufacturing, marketing, vehicle sales resources and networks than we do and may be able to devote greater resources to the design, development, manufacturing, distribution, promotion, sale and support of their products. In particular, some competitors have also announced plans to compete with us in important and large markets for electric vehicles, such as China and in Europe. Increased competition could result in lower vehicle unit sales, price reductions, revenue shortfalls, loss of customers and loss of market share, which could harm our business, prospects, financial condition and operating results. In addition, Model 3 and Model Y face competition from existing and future automobile manufacturers in the extremely competitive entry-level premium sedan and compact SUV market, including BMW, Ford, Lexus, Mercedes and Volkswagen Group.

The solar and energy storage industries are highly competitive. We face competition from other manufacturers, developers and installers of solar and energy storage systems, as well as from large utilities. Decreases in the retail prices of electricity from utilities or other renewable energy sources could make our products less attractive to customers and lead to an increased rate of customer defaults under our existing long-term leases and PPAs. Moreover, prices for solar product components and prices per kWh for lithium-ion battery cells have declined and may continue to decline, which may adversely impact our ability to cost-effectively manufacture such components ourselves.

If we are unable to establish and maintain confidence in our long-term business prospects among consumers, analysts and within our industries, or are subject to negative publicity, then our financial condition, operating results, business prospects and access to capital may suffer materially.

Consumers may be less likely to purchase our products if they are not convinced that our business will succeed or that our service and support and other operations will continue in the long term. Similarly, suppliers and other third parties will be less likely to invest time and resources in developing business relationships with us if they are not convinced that our business will succeed. Accordingly, in order to build and maintain our business, we must maintain confidence among customers, suppliers, analysts, ratings agencies and other parties in our long-term financial viability and business prospects. Maintaining such confidence may be particularly complicated by certain factors including those that are largely outside of our control, such as our limited operating history, customer unfamiliarity with our products, any delays in scaling manufacturing, delivery and service operations to meet demand, competition and uncertainty regarding the future of electric vehicles or our other products and services, and our quarterly production and sales performance compared with market expectations.

In particular, Tesla's products, business, results of operations, statements and actions are well-publicized by a range of third parties. Such attention includes frequent criticism, which is often exaggerated or unfounded, such as speculation regarding the sufficiency or stability of our management team. Any such negative perceptions, whether caused by us or not, could harm our business and make it more difficult to raise additional funds if needed.

If we fail to effectively grow and manage the residual, financing and credit risks related to our vehicle financing programs, our business may suffer.

We offer financing arrangements for our vehicles in North America, Europe and Asia primarily through various financial institutions. We also currently offer leasing directly through our local subsidiaries for Model S, Model X and Model 3 in the U.S. and for Model S and Model X in Canada. Under a lease held directly by us, we typically receive only a very small portion of the total vehicle purchase price at the time of lease, followed by a stream of payments over the term of the lease. The profitability of any vehicles returned to us at the end of their leases depends on our ability to accurately project our vehicles' residual values at the outset of the leases, and such values may fluctuate prior to the end of their terms depending on various factors such as supply and demand of our used vehicles, economic cycles and the pricing of new vehicles. For example, we made certain adjustments to our vehicle prices during 2019 to reflect anticipated changes to our cost structure from periodically optimizing our retail strategy, and as a limited accommodation to customers in consideration of a reduction in the electric vehicle federal tax credit. Such pricing changes may impact the residual values of our vehicles. The leasing program also relies on our ability to secure adequate financing and/or business partners to fund and grow this program, and screen for and manage customer credit risk. We expect the availability of leasing and other financing options will be important for our vehicle customers. If we are unable to adequately fund our leasing program with internal funds, or partners or other external financing sources, and compelling alternative financing programs are not available for our customers, we may be unable to grow our deliveries. Furthermore, if our leasing business grows substantially, our business may suffer if we cannot effectively manage the greater levels of residual and credit risks resulting from growth. Finally, if we do not successfully monitor and comply with applicable national, state and/or local financial regulations and consumer protection laws governing lease transactions, we may become subject to enforcement actions or penalties, either of which may harm our business.

Moreover, we have provided resale value guarantees to customers and partners for certain financing programs, under which such counterparties may sell their vehicles back to us at certain points in time at pre-determined amounts. However, actual resale values, as with residual values for leased vehicles, are subject to similar fluctuations over the term of the financing arrangements, such as from the vehicle pricing changes discussed above. If the actual resale values of any vehicles resold or returned to us pursuant to these programs are materially lower than the pre-determined amounts we have offered, our operating results, profitability and/or liquidity could be negatively impacted.

The unavailability, reduction or elimination of, or unfavorable determinations with respect to, government and economic incentives in the U.S. and abroad supporting the development and adoption of electric vehicles, energy storage products or solar energy could have some impact on demand for our products and services.

We and our customers currently benefit from certain government and economic incentives supporting the development and adoption of electric vehicles. In the U.S. and abroad, such incentives include tax credits or rebates that encourage the purchase of electric vehicles. Specific policies in place around the world include exempting the purchase of electric vehicles from import taxes, value added taxes, or carbon dioxide and weight-based purchase taxes. Such programs could be reduced, eliminated or exhausted. For example, under current regulations, a \$7,500 federal tax credit that was available in the U.S. for the purchase of our vehicles was reduced in phases during 2019 and ended on December 31, 2019. We believe that this sequential phase-out likely pulled forward some vehicle demand into the periods preceding each reduction. Moreover, in July 2018, a previously available incentive for purchases of Model 3 in Ontario, Canada was cancelled and Tesla buyers in Germany lost access to electric vehicle incentives for a short period of time beginning late 2017. In April 2017 and January 2016, respectively, previously available incentives in Hong Kong and Denmark that favored the purchase of electric vehicles expired, negatively impacting sales. Effective March 2016, California implemented regulations phasing out a \$2,500 cash rebate on qualified electric vehicles for high-income consumers. Such developments could have some negative impact on demand for our vehicles, and we and our customers may have to adjust to them.

In addition, certain governmental rebates, tax credits and other financial incentives that are currently available with respect to our solar and energy storage product businesses allow us to lower our costs and encourage customers to buy our products and investors to invest in our solar financing funds. However, these incentives may expire on a particular date when the allocated funding is exhausted, reduced or terminated as renewable energy adoption rates increase, sometimes without warning. For example, the U.S. federal government currently offers an investment tax credit (ITC) for the installation of solar power facilities and energy storage systems that are charged from a co-sited solar power facility; however, the ITC is currently scheduled to decline in phases, from 26% for qualifying solar systems for which construction began by December 31, 2020, to 10% for commercial and utility systems and to 0% for customer-owned residential systems for which construction begins after December 31, 2021. Likewise, in jurisdictions where net energy metering is currently available, our customers receive bill credits from utilities for energy that their solar energy systems generate and export to the grid in excess of the electric load they use. Several jurisdictions have reduced, altered or eliminated the benefit available under net energy metering, or have proposed to do so. Such reductions in or termination of governmental incentives could adversely impact our results by making our products less competitive for potential customers, increasing our cost of capital and adversely impacting our ability to attract investment partners and to form new financing funds for our solar and energy storage assets.

Moreover, we and our fund investors claim the ITC and certain state incentives in amounts based on the fair market value of our solar and energy storage systems. Although we obtain independent appraisals to support the claimed fair market values, the relevant governmental authorities have audited such values and in certain cases have determined that they should be lower, and they may do so again in the future. Such determinations may result in adverse tax consequences and/or our obligation to make indemnification or other payments to our funds or fund investors.

Any failure by us to comply with the terms of our agreement with the Research Foundation for the State University of New York relating to our Gigafactory New York, could result in negative consequences for our business.

We are party to an operating lease and a research and development agreement through the SUNY Foundation. These agreements provide for the construction and use of our Gigafactory in Buffalo, New York, which we have primarily used for the development and production of our Solar Roof and other solar products and components, energy storage components, and Supercharger components, and for other lessor-approved functions. Under this agreement, we are obligated to, among other things, directly employ specified minimum numbers of personnel in the State of New York and spend or incur \$5.0 billion in combined capital, operational expenses, costs of goods sold and other costs in the State of New York during the 10-year period beginning April 30, 2018. While we expect significant operations at Gigafactory New York and the surrounding Buffalo area to continue, including with our ramp and manufacture of the Solar Roof, if we fail in any year over the course of the term of the agreement to meet these obligations, we would be obligated to pay a “program payment” of \$41.2 million to the SUNY Foundation for such year. Any inability on our part to comply with the requirements of this agreement may result in the payment of significant amounts to the SUNY Foundation, the termination of our lease at Gigafactory New York, and/or the need to adjust certain of our operations, in particular our production ramp of the Solar Roof or Supercharger components. Any of the foregoing events could have a material adverse effect on our business, prospects, financial condition and operating results.

If we are unable to attract and/or retain key employees and hire qualified personnel, our ability to compete could be harmed.

The loss of the services of any of our key employees could disrupt our operations, delay the development and introduction of our vehicles and services, and negatively impact our business, prospects and operating results. In particular, we are highly dependent on the services of Elon Musk, our Chief Executive Officer.

None of our key employees is bound by an employment agreement for any specific term and we may not be able to successfully attract and retain senior leadership necessary to grow our business. Our future success depends upon our ability to attract and retain executive officers and other key technology, sales, marketing, engineering, manufacturing and support personnel, especially to support our high-volume manufacture of vehicles, expansion plans and technological innovation, and any failure or delay in doing so could adversely impact our business, prospects, financial condition and operating results.

Key talent may leave Tesla due to various factors, such as a very competitive labor market for talented individuals with automotive or technology experience, or any negative publicity related to us. In California, Nevada and other regions where we have operations, including outside of the U.S., there is increasing competition for individuals with skillsets needed for our business, including specialized knowledge of electric vehicles, software engineering, manufacturing engineering, and other skills such as electrical and building construction expertise. This competition affects our ability to retain and hire key employees. Moreover, we have in the past conducted reductions in force in order to optimize our organizational structure and reduce costs, and certain senior personnel have also departed for various reasons. Our continued success depends upon our continued ability to hire new employees in a timely manner, especially to support our expansion plans, and to retain current employees or replace departed senior employees with qualified and experienced individuals, which is typically a time-consuming process. Additionally, we compete with both mature and prosperous companies that have far greater financial resources than we do and start-ups and emerging companies that promise short-term growth opportunities. Difficulties in retaining or recruiting employees could have an adverse effect on our performance and results.

Finally, our compensation philosophy for all of our personnel reflects our startup origins, with an emphasis on equity-based awards and benefits in order to closely align their incentives with the long-term interests of our stockholders. We have to periodically seek and obtain approval from our stockholders for future increases to the number of awards that may be granted and shares that may be purchased under our equity incentive and employee stock purchase plans. If we are unable to obtain the requisite stockholder approvals to obtain future increases to the number of awards that may be granted and shares that may be purchased under such plans, and compensate our personnel in accordance with our compensation philosophy, our ability to retain and hire qualified personnel would be negatively impacted.

We are highly dependent on the services of Elon Musk, our Chief Executive Officer.

We are highly dependent on the services of Elon Musk, our Chief Executive Officer and largest stockholder. Although Mr. Musk spends significant time with Tesla and is highly active in our management, he does not devote his full time and attention to Tesla. Mr. Musk also currently serves as Chief Executive Officer and Chief Technical Officer of Space Exploration Technologies Corp., a developer and manufacturer of space launch vehicles, and is involved in other emerging technology ventures.

We are continuously expanding and improving our information technology systems and use security measures designed to protect our systems against breaches and cyber-attacks. If these efforts are not successful, our business and operations could be disrupted or our intellectual property could be compromised, as a result of which our operating results and reputation could be harmed.

We are continuously expanding and improving our information technology systems, including implementing new internally developed systems and deploying such systems globally, to assist us in the management of our business. In particular, our volume production of multiple vehicles necessitates continued development, maintenance and improvement of our information technology systems in the U.S. and abroad, including at Gigafactory Shanghai, such as systems for product data management, procurement, inventory management, production planning and execution, sales, service and logistics, dealer management, financial, tax and regulatory compliance systems. We also maintain information technology measures designed to protect us against intellectual property theft, data breaches and other cyber-attacks. The implementation, maintenance, segregation and improvement of these systems require significant management time, support and cost. Moreover, there are inherent risks associated with developing, improving and expanding our core systems as well as implementing new systems and updating current systems, including the disruption of our data management, procurement, manufacturing execution, finance, supply chain and sales and service processes. These risks may affect our ability to manage our data and inventory, procure parts or supplies or manufacture, sell, deliver and service vehicles, adequately protect our intellectual property or achieve and maintain compliance with, or realize available benefits under, tax laws and other applicable regulations.

We cannot be sure that these systems or their required functionality will be effectively implemented, maintained or expanded as planned. If we do not successfully implement, maintain or expand these systems as planned, our operations may be disrupted, our ability to accurately and/or timely report our financial results could be impaired, and deficiencies may arise in our internal control over financial reporting, which may impact our ability to certify our financial results. Moreover, our proprietary information or intellectual property could be compromised or misappropriated and our reputation may be adversely affected. If these systems or their functionality do not operate as we expect them to, we may be required to expend significant resources to make corrections or find alternative sources for performing these functions.

Any unauthorized control or manipulation of our products' systems could result in loss of confidence in us and our products and harm our business.

Our products contain complex information technology systems. For example, our vehicles and energy storage products are designed with built-in data connectivity to accept and install periodic remote updates from us to improve or update their functionality. We have designed, implemented and tested security measures intended to prevent unauthorized access to our information technology networks, our products and their systems. However, hackers have reportedly attempted, and may attempt in the future, to gain unauthorized access to modify, alter and use such networks, products and systems to gain control of, or to change, our products' functionality, user interface and performance characteristics, or to gain access to data stored in or generated by our products. We encourage reporting of potential vulnerabilities in the security of our products via our security vulnerability reporting policy, and we aim to remedy any reported and verified vulnerability. Accordingly, we have received reports of potential vulnerabilities in the past and have attempted to remedy them. However, there can be no assurance that vulnerabilities will not be exploited in the future before they can be identified, or that our remediation efforts are or will be successful.

Any unauthorized access to or control of our products or their systems or any loss of data could result in legal claims or proceedings. In addition, regardless of their veracity, reports of unauthorized access to our products, their systems or data, as well as other factors that may result in the perception that our products, their systems or data are capable of being "hacked," could negatively affect our brand and harm our business, prospects, financial condition and operating results. We have been the subject of such reports in the past.

We are subject to substantial laws and regulations that could impose substantial costs, legal prohibitions or unfavorable changes upon our operations or products, and any failure to comply with these laws and regulations, including as they evolve, could negatively impact our ability to operate our manufacturing facilities and substantially harm our business and operating results.

As a manufacturing company, including with respect to our current facilities such as the Fremont Factory, Gigafactory Nevada, Gigafactory New York and Gigafactory Shanghai and our future facility at Gigafactory Berlin, we are or will be subject to complex environmental, manufacturing, health and safety laws and regulations at numerous jurisdictional levels in the U.S., China, Germany and other locations abroad, including laws relating to the use, handling, storage, recycling, disposal and human exposure to hazardous materials and with respect to constructing, expanding and maintaining our facilities. The costs of compliance, including remediating contamination if any is found on our properties and any changes to our operations mandated by new or amended laws, may be significant. We may also face unexpected delays in obtaining permits and approvals required by such laws in connection with our manufacturing facilities, which would hinder our operation of these facilities. Such costs and delays may adversely impact our business prospects and operating results. Furthermore, any violations of these laws may result in substantial fines and penalties, remediation costs, third party damages, or a suspension or cessation of our operations.

In addition, motor vehicles are subject to substantial regulation under international, federal, state and local laws. We incur significant costs in complying with these regulations and may be required to incur additional costs to comply with any changes to such regulations, and any failures to comply could result in significant expenses, delays or fines. We are subject to laws and regulations applicable to the supply, manufacture, import, sale and service of automobiles internationally. For example, in countries outside of the U.S., we are required to meet standards relating to vehicle safety, fuel economy and emissions, among other things, that are often materially different from requirements in the U.S., thus resulting in additional investment into the vehicles and systems to ensure regulatory compliance in those countries. This process may include official review and certification of our vehicles by foreign regulatory agencies prior to market entry, as well as compliance with foreign reporting and recall management systems requirements.

In particular, we offer in our vehicles Autopilot and FSD features that today assist drivers with certain tedious and potentially dangerous aspects of road travel, but which currently require drivers to remain engaged. We are continuing to develop our FSD technology with the goal of achieving full self-driving capability in the future. There is a variety of international, federal and state regulations that may apply to self-driving vehicles, which include many existing vehicle standards that were not originally intended to apply to vehicles that may not have a driver. Such regulations continue to rapidly change, which increases the likelihood of a patchwork of complex or conflicting regulations, or may delay products or restrict self-driving features and availability, any of which could adversely affect our business.

Finally, as a manufacturer and installer of solar generation and energy storage systems and a supplier of electricity generated and stored by the solar energy and energy storage systems we install for customers, we are impacted by federal, state and local regulations and policies concerning electricity pricing, the interconnection of electricity generation and storage equipment with the electric grid, and the sale of electricity generated by third-party owned systems. For example, existing or proposed regulations and policies would permit utilities to limit the amount of electricity generated by our customers with their solar energy systems, charge fees and penalties to our customers relating to the purchase of energy other than from the grid, adjust electricity rate designs such that the price of our solar products may not be competitive with that of electricity from the grid, restrict us and our customers from transacting under our PPAs or qualifying for government incentives and benefits that apply to solar power, and limit or eliminate net energy metering. If such regulations and policies are adopted, or if other regulations and policies that adversely impact the interconnection or use of our solar and energy storage systems are introduced, they could deter potential customers from purchasing our solar and energy storage products, threaten the economics of our existing contracts and cause us to cease solar and energy storage system sales and operations in the relevant jurisdictions, which could harm our business, prospects, financial condition and results of operations.

Failure to comply with a variety of U.S. and international privacy and consumer protection laws to which we are subject could harm the Company.

Our privacy policy is posted on our website, and any failure by us or our vendor or other business partners to comply with it or with federal, state or international privacy, data protection or security laws or regulations relating to the collection, use, retention, security and transfer of personally identifiable information could result in regulatory or litigation-related actions against us, legal liability, fines, damages, ongoing audit requirements and other significant costs. Substantial expenses and operational changes may be required in connection with maintaining compliance with such laws, and in particular certain emerging privacy laws are still subject to a high degree of uncertainty as to their interpretation and application. For example, in May 2018, the General Data Protection Regulation began to fully apply to the processing of personal information collected from individuals located in the European Union, and has created new compliance obligations and has significantly increased fines for noncompliance. Similarly, beginning in January 2020, the California Consumer Privacy Act imposes certain legal obligations on our use and processing of personal information related to California residents. Although we take steps to protect the security and integrity of our customers' personal information, we may be required to expend significant resources to comply with data breach requirements if third parties improperly obtain and use the personal information of our customers or we otherwise experience a data loss with respect to customers' personal information. A major breach of our network security and systems could have negative consequences for our business and future prospects, including possible fines, penalties and damages, reduced customer demand for our vehicles and harm to our reputation and brand.

Our business may be adversely affected by any disruptions caused by union activities.

It is not uncommon for employees of certain trades at companies such as us to belong to a union, which can result in higher employee costs and increased risk of work stoppages. Moreover, regulations in some jurisdictions outside of the U.S. mandate employee participation in industrial collective bargaining agreements and work councils with certain consultation rights with respect to the relevant companies' operations. Although we work diligently to provide the best possible work environment for our employees, they may still decide to join or seek recognition to form a labor union, or we may be required to become a union signatory. From time to time, labor unions have engaged in campaigns to organize certain of our operations, as part of which such unions have filed unfair labor practice charges against us with the National Labor Relations Board, and they may do so in the future. In September 2019, an administrative law judge issued a recommended decision for Tesla on certain issues and against us on certain others. The National Labor Relations Board has not yet adopted the recommendation and we have appealed certain aspects of the recommended decision. Any unfavorable ultimate outcome for Tesla may have a negative impact on the perception of Tesla's treatment of our employees. Furthermore, we are directly or indirectly dependent upon companies with unionized work forces, such as parts suppliers and trucking and freight companies, and work stoppages or strikes organized by such unions could have a material adverse impact on our business, financial condition or operating results. If a work stoppage occurs, it could delay the manufacture and sale of our products and have a material adverse effect on our business, prospects, operating results or financial condition.

We may choose to or be compelled to undertake product recalls or take other similar actions, which could adversely affect our brand image and financial performance.

Any product recall with respect to our products may result in adverse publicity, damage our brand and adversely affect our business, prospects, operating results and financial condition. For example, certain vehicle recalls that we initiated have resulted from various causes, including a component that could prevent the parking brake from releasing once engaged, a concern with the firmware in the restraints control module in certain right-hand-drive vehicles, industry-wide issues with airbags from a particular supplier, Model X seat components that could cause unintended seat movement during a collision, and concerns of corrosion in Model S and Model X power steering assist motor bolts. Furthermore, testing of our products by government regulators or industry groups may require us to initiate product recalls or may result in negative public perceptions about the safety of our products. In the future, we may at various times, voluntarily or involuntarily, initiate a recall if any of our products or our electric vehicle powertrain components that we have provided to other vehicle OEMs, including any systems or parts sourced from our suppliers, prove to be defective or noncompliant with applicable laws and regulations, such as federal motor vehicle safety standards. Such recalls, whether voluntary or involuntary or caused by systems or components engineered or manufactured by us or our suppliers, could involve significant expense and could adversely affect our brand image in our target markets, as well as our business, prospects, financial condition and results of operations.

Our current and future warranty reserves may be insufficient to cover future warranty claims which could adversely affect our financial performance.

We provide a manufacturer's warranty on all new and used Tesla vehicles and production powertrain components and systems we sell. In addition, we also provide a warranty on the installation and components of the energy generation and storage systems we sell, and we pass through to our customers the inverter and panel manufacturers' warranties. Finally, we offer a performance guarantee with our leased solar energy systems that compensates a customer on an annual basis if their system does not meet the electricity production guarantees set forth in their PPA or lease. Under these performance guarantees, we bear the risk of electricity production shortfalls resulting from an inverter or panel failure. These risks are exacerbated in the event the panel or inverter manufacturers cease operations or fail to honor their warranties.

If our warranty reserves are inadequate to cover future warranty claims on our products, our business, prospects, financial condition and operating results could be materially and adversely affected. Warranty reserves include our management's best estimate of the projected costs to repair or to replace items under warranty. These estimates are based on actual claims incurred to date and an estimate of the nature, frequency and costs of future claims. Such estimates are inherently uncertain and changes to our historical or projected experience, especially with respect to products such as Model 3, Model Y and the Solar Roof that we have recently introduced and/or that we expect to produce at significantly greater volumes than our past products, may cause material changes to our warranty reserves in the future.

Our insurance coverage strategy may not be adequate to protect us from all business risks.

We may be subject, in the ordinary course of business, to losses resulting from products liability, accidents, acts of God and other claims against us, for which we may have no insurance coverage. As a general matter, we do not maintain as much insurance coverage as many other companies do, and in some cases, we do not maintain any at all. Additionally, the policies that we do have may include significant deductibles or self-insured retentions, and we cannot be certain that our insurance coverage will be sufficient to cover all future losses or claims against us. A loss that is uninsured or which exceeds policy limits may require us to pay substantial amounts, which could adversely affect our financial condition and operating results.

Our financial results may vary significantly from period to period due to fluctuations in our operating costs and other factors.

We expect our period-to-period financial results to vary based on our operating costs, which we anticipate will fluctuate as the pace at which we continue to design, develop and manufacture new products and increase production capacity by expanding our current manufacturing facilities and adding future facilities, may not be consistent or linear between periods. Additionally, our revenues from period to period may fluctuate as we introduce existing products to new markets for the first time and as we develop and introduce new products. As a result of these factors, we believe that quarter-to-quarter comparisons of our financial results, especially in the short term, are not necessarily meaningful and that these comparisons cannot be relied upon as indicators of future performance. Moreover, our financial results may not meet expectations of equity research analysts, ratings agencies or investors, who may be focused only on quarterly financial results. If any of this occurs, the trading price of our stock could fall substantially, either suddenly or over time.

Servicing our indebtedness requires a significant amount of cash, and there is no guarantee that we will have sufficient cash flow from our business to pay our substantial indebtedness.

As of December 31, 2019, we and our subsidiaries had outstanding \$12.49 billion in aggregate principal amount of indebtedness (see Note 12*Debt*, to the consolidated financial statements included elsewhere in this Annual Report on Form 10-K). Our substantial consolidated indebtedness may increase our vulnerability to any generally adverse economic and industry conditions. We and our subsidiaries may, subject to the limitations in the terms of our existing and future indebtedness, incur additional debt, secure existing or future debt or recapitalize our debt.

Pursuant to their terms, holders of our 1.25% Convertible Senior Notes due 2021, 2.375% Convertible Senior Notes due 2022 and 2.00% Convertible Senior Notes due 2024 (together, the “Tesla Convertible Notes”) may convert their respective Tesla Convertible Notes at their option prior to the scheduled maturities of the respective Tesla Convertible Notes under certain circumstances. Upon conversion of the applicable Tesla Convertible Notes, we will be obligated to deliver cash and/or shares in respect of the principal amounts thereof and the conversion value in excess of such principal amounts on such Tesla Convertible Notes. Moreover, our subsidiary’s Zero-Coupon Convertible Senior Notes due 2020 (the “Subsidiary Convertible Notes”) are convertible into shares of our common stock at a conversion price of \$300.00 per share. Finally, holders of the Tesla Convertible Notes and the Subsidiary Convertible Notes will have the right to require us to repurchase their notes upon the occurrence of a fundamental change at a purchase price equal to 100% of the principal amount of the notes, plus accrued and unpaid interest, if any, to, but not including, the fundamental change purchase date.

Our ability to make scheduled payments of the principal and interest on our indebtedness when due or to make payments upon conversion or repurchase demands with respect to our convertible notes, or to refinance our indebtedness as we may need or desire, depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not continue to generate cash flow from operations in the future sufficient to satisfy our obligations under our existing indebtedness, and any future indebtedness we may incur, and to make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as reducing or delaying investments or capital expenditures, selling assets, refinancing or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance existing or future indebtedness will depend on the capital markets and our financial condition at such time. In addition, our ability to make payments may be limited by law, by regulatory authority or by agreements governing our future indebtedness. We may not be able to engage in any of these activities or engage in these activities on desirable terms or at all, which could result in a default on our existing or future indebtedness and have a material adverse effect on our business, results of operations and financial condition.

Our debt agreements contain covenant restrictions that may limit our ability to operate our business.

The terms of certain of our credit facilities, including the Credit Agreement, contain, and any of our other future debt agreements may contain, covenant restrictions that limit our ability to operate our business, including restrictions on our ability to, among other things, incur additional debt or issue guarantees, create liens, repurchase stock or make other restricted payments, and make certain voluntary prepayments of specified debt. In addition, under certain circumstances we are required to comply with a fixed charge coverage ratio. As a result of these covenants, our ability to respond to changes in business and economic conditions and engage in beneficial transactions, including to obtain additional financing as needed, may be restricted. Furthermore, our failure to comply with our debt covenants could result in a default under our debt agreements, which could permit the holders to accelerate our obligation to repay the debt. If any of our debt is accelerated, we may not have sufficient funds available to repay it.

We may need or want to raise additional funds and these funds may not be available to us when we need them. If we cannot raise additional funds when we need or want them, our operations and prospects could be negatively affected.

The design, manufacture, sale, installation and/or servicing of automobiles, energy storage products and solar products is a capital-intensive business, and the specific timing of cash inflows and outflows may fluctuate substantially from period to period. Until we are consistently generating positive free cash flows, we may need or want to raise additional funds through the issuance of equity, equity-related or debt securities or through obtaining credit from financial institutions to fund, together with our principal sources of liquidity, the costs of developing and manufacturing our current or future vehicles, energy storage products and/or solar products, to pay any significant unplanned or accelerated expenses or for new significant strategic investments, or to refinance our significant consolidated indebtedness, even if not required to do so by the terms of such indebtedness. We need sufficient capital to fund ongoing operations, research and development projects for new products, establishment and/or increases of Model 3 and Model Y production capacity at the Fremont Factory and at Gigafactory Shanghai, the continued expansion of Gigafactory Nevada, the construction of Gigafactory Berlin, the manufacturing ramp of the Solar Roof at Gigafactory New York, and the continued expansion of our retail and service locations, body shops, Mobile Service fleet and Supercharger network. We cannot be certain that additional funds will be available to us on favorable terms when required, or at all. If we cannot raise additional funds when we need them, our financial condition, results of operations, business and prospects could be materially and adversely affected.

We could be subject to liability, penalties and other restrictive sanctions and adverse consequences arising out of certain governmental investigations and proceedings.

We are cooperating with certain government investigations as discussed in Note 16, *Commitments and Contingencies*, to the consolidated financial statements included elsewhere in this Annual Report on Form 10-K. To our knowledge, no government agency in any such ongoing investigation has concluded that any wrongdoing occurred. However, we cannot predict the outcome or impact of any such ongoing matters, and there exists the possibility that we could be subject to liability, penalties and other restrictive sanctions and adverse consequences if the SEC, the DOJ, or any other government agency were to pursue legal action in the future. Moreover, we expect to incur costs in responding to related requests for information and subpoenas, and if instituted, in defending against any governmental proceedings.

For example, on October 16, 2018, the U.S. District Court for the Southern District of New York entered a final judgment approving the terms of a settlement filed with the Court on September 29, 2018, in connection with the actions taken by the SEC relating to Mr. Musk's statement on August 7, 2018 that he was considering taking Tesla private. Pursuant to the settlement, we, among other things, paid a civil penalty of \$20 million, appointed an independent director as the Chair of the Board, appointed two additional independent directors to our board of directors, and made further enhancements to our disclosure controls and other corporate governance-related matters. On April 26, 2019, this settlement was amended to clarify certain of the previously-agreed disclosure procedures, which was subsequently approved by the Court. All other terms of the prior settlement were reaffirmed without modification. Although we intend to continue to comply with the terms and requirements of the settlement, if there is a lack of compliance or an alleged lack of compliance, additional enforcement actions or other legal proceedings may be instituted against us.

If we update or discontinue the use of our manufacturing equipment more quickly than expected, we may have to shorten the useful lives of any equipment to be retired as a result of any such update, and the resulting acceleration in our depreciation could negatively affect our financial results.

We have invested and expect to continue to invest significantly in what we believe is state of the art tooling, machinery and other manufacturing equipment for our various product lines, and we depreciate the cost of such equipment over their expected useful lives. However, manufacturing technology may evolve rapidly, and we may decide to update our manufacturing process with cutting-edge equipment more quickly than expected. Moreover, we are continually implementing learnings as our engineering and manufacturing expertise and efficiency increase, which may result in our ability to manufacture our products using less of our currently installed equipment. Alternatively, as we ramp and mature the production of our products to higher levels, our learnings may cause us to discontinue the use of already installed equipment in favor of different or additional equipment. The useful life of any equipment that would be retired early as a result would be shortened, causing the depreciation on such equipment to be accelerated, and our results of operations could be negatively impacted.

We are exposed to fluctuations in currency exchange rates, which could negatively affect our financial results.

We transact business globally in multiple currencies and have foreign currency risks related to our revenue, costs of revenue and operating expenses denominated in currencies other than the U.S. dollar, primarily the euro, Japanese yen, Canadian dollar, Chinese yuan and Norwegian krone. To the extent we have significant revenues denominated in such foreign currencies, any strengthening of the U.S. dollar would tend to reduce our revenues as measured in U.S. dollars, as we have historically experienced. In addition, a portion of our costs and expenses have been, and we anticipate will continue to be, denominated in foreign currencies, including the Japanese yen. If we do not have fully offsetting revenues in these currencies and if the value of the U.S. dollar depreciates significantly against these currencies, our costs as measured in U.S. dollars as a percent of our revenues will correspondingly increase and our margins will suffer. Moreover, while we undertake limited hedging activities intended to offset the impact of currency translation exposure, it is impossible to predict or eliminate such impact. As a result, our operating results could be adversely affected.

We may face regulatory limitations on our ability to sell vehicles directly which could materially and adversely affect our ability to sell our electric vehicles.

We sell our vehicles directly to consumers using means that we believe will maximize our reach, currently including through our website and our own stores. While we intend to continue to leverage our most effective sales strategies, we may not be able to sell our vehicles through our own stores in each state in the U.S., as some states have laws that may be interpreted to impose limitations on this direct-to-consumer sales model. In some states, we have also opened galleries to educate and inform customers about our products, but such locations do not actually transact in the sale of vehicles. The application of these state laws to our operations continues to be difficult to predict. Laws in some states have limited our ability to obtain dealer licenses from state motor vehicle regulators and may continue to do so.

In addition, decisions by regulators permitting us to sell vehicles may be challenged by dealer associations and others as to whether such decisions comply with applicable state motor vehicle industry laws. We have prevailed in many of these lawsuits and such results have reinforced our continuing belief that state laws were not designed to prevent our distribution model. In some states, there have also been regulatory and legislative efforts by dealer associations to propose laws that, if enacted, would prevent us from obtaining dealer licenses in their states given our current sales model. A few states have passed legislation that clarifies our ability to operate, but at the same time limits the number of dealer licenses we can obtain or stores that we can operate.

Internationally, there may be laws in jurisdictions we have not yet entered or laws we are unaware of in jurisdictions we have entered that may restrict our sales or other business practices. Even for those jurisdictions we have analyzed, the laws in this area can be complex, difficult to interpret and may change over time. Continued regulatory limitations and other obstacles interfering with our ability to sell vehicles directly to consumers could have a negative and material impact our business, prospects, financial condition and results of operations.

We may need to defend ourselves against intellectual property infringement claims, which may be time-consuming and could cause us to incur substantial costs.

Others, including our competitors, may hold or obtain patents, copyrights, trademarks or other proprietary rights that could prevent, limit or interfere with our ability to make, use, develop, sell or market our products and services, which could make it more difficult for us to operate our business. From time to time, the holders of such intellectual property rights may assert their rights and urge us to take licenses, and/or may bring suits alleging infringement or misappropriation of such rights. While we endeavor to obtain and protect the intellectual property rights that we expect will allow us to retain or advance our strategic initiatives, there can be no assurance that we will be able to adequately identify and protect the portions of intellectual property that are strategic to our business, or mitigate the risk of potential suits or other legal demands by our competitors. Accordingly, we may consider the entering into licensing agreements with respect to such rights, although no assurance can be given that such licenses can be obtained on acceptable terms or that litigation will not occur, and such licenses and associated litigation could significantly increase our operating expenses. In addition, if we are determined to have or believe there is a high likelihood that we have infringed upon a third party's intellectual property rights, we may be required to cease making, selling or incorporating certain components or intellectual property into the goods and services we offer, to pay substantial damages and/or license royalties, to redesign our products and services, and/or to establish and maintain alternative branding for our products and services. In the event that we were required to take one or more such actions, our business, prospects, operating results and financial condition could be materially adversely affected. In addition, any litigation or claims, whether or not valid, could result in substantial costs, negative publicity and diversion of resources and management attention.

Our facilities or operations could be adversely affected by events outside of our control, such as natural disasters, wars or health epidemics.

We may be impacted by natural disasters, wars, health epidemics or other events outside of our control. For example, our corporate headquarters, the Fremont Factory and Gigafactory Nevada are located in seismically active regions in Northern California and Nevada, and our Gigafactory Shanghai is located in a flood-prone area. If major disasters such as earthquakes, floods or other events occur, or our information system or communications network breaks down or operates improperly, our headquarters and production facilities may be seriously damaged, or we may have to stop or delay production and shipment of our products. In addition, beginning in late 2019, the media has reported a public health epidemic originating in China, prompting precautionary government-imposed closures of certain travel and business. Gigafactory Shanghai was closed for a brief time as a result, before it reopened in February 2020 and rejoined our U.S. factories, which had continued to operate. It is unknown whether and how global supply chains, particularly for automotive parts, may be affected if such an epidemic persists for an extended period of time. We may incur expenses or delays relating to such events outside of our control, which could have a material adverse impact on our business, operating results and financial condition.

Risks Related to the Ownership of Our Common Stock***The trading price of our common stock is likely to continue to be volatile.***

The trading price of our common stock has been highly volatile and could continue to be subject to wide fluctuations in response to various factors, some of which are beyond our control. Our common stock has experienced an intra-day trading high of \$968.99 per share and a low of \$176.99 per share over the last 52 weeks. The stock market in general, and the market for technology companies in particular, has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. In particular, a large proportion of our common stock has been and may continue to be traded by short sellers which may put pressure on the supply and demand for our common stock, further influencing volatility in its market price. Public perception and other factors outside of our control may additionally impact the stock price of companies like us that garner a disproportionate degree of public attention, regardless of actual operating performance. In addition, in the past, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has often been instituted against these companies. Moreover, stockholder litigation like this has been filed against us in the past. While we defend such actions vigorously, any judgment against us or any future stockholder litigation could result in substantial costs and a diversion of our management's attention and resources.

We may fail to meet our publicly announced guidance or other expectations about our business, which could cause our stock price to decline.

We may provide from time to time guidance regarding our expected financial and business performance, which may include projections regarding sales and production, as well as anticipated future revenues, gross margins, profitability and cash flows. Correctly identifying key factors affecting business conditions and predicting future events is inherently an uncertain process, and our guidance may not ultimately be accurate and has in the past been inaccurate in certain respects, such as the timing of new product manufacturing ramps. Our guidance is based on certain assumptions such as those relating to anticipated production and sales volumes (which generally are not linear throughout a given period), average sales prices, supplier and commodity costs, and planned cost reductions. If our guidance is not accurate or varies from actual results due to our inability to meet our assumptions or the impact on our financial performance that could occur as a result of various risks and uncertainties, the market value of our common stock could decline significantly.

Transactions relating to our convertible notes may dilute the ownership interest of existing stockholders, or may otherwise depress the price of our common stock.

The conversion of some or all of the Tesla Convertible Notes or the Subsidiary Convertible Notes would dilute the ownership interests of existing stockholders to the extent we deliver shares upon conversion of any of such notes. Our Subsidiary Convertible Notes have been historically, and the other Tesla Convertible Notes may become in the future, convertible at the option of their holders prior to their scheduled terms under certain circumstances. If holders elect to convert their convertible notes, we could be required to deliver to them a significant number of shares of our common stock. Any sales in the public market of the common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, the existence of the convertible notes may encourage short selling by market participants because the conversion of such notes could be used to satisfy short positions, or anticipated conversion of such notes into shares of our common stock could depress the price of our common stock.

Moreover, in connection with each issuance of the Tesla Convertible Notes, we entered into convertible note hedge transactions, which are expected to reduce the potential dilution and/or offset potential cash payments we are required to make in excess of the principal amount upon conversion of the applicable Tesla Convertible Notes. We also entered into warrant transactions with the hedge counterparties, which could separately have a dilutive effect on our common stock to the extent that the market price per share of our common stock exceeds the applicable strike price of the warrants on the applicable expiration dates. In addition, the hedge counterparties or their affiliates may enter into various transactions with respect to their hedge positions, which could also cause or prevent an increase or a decrease in the market price of our common stock or the convertible notes.

Elon Musk has pledged shares of our common stock to secure certain bank borrowings. If Mr. Musk were forced to sell these shares in order to satisfy his loan obligations, such sales could cause our stock price to decline.

Certain banking institutions have made extensions of credit to Elon Musk, our Chief Executive Officer, a portion of which was used to purchase shares of common stock in certain of our public offerings and private placements at the same prices offered to third party participants in such offerings and placements. We are not a party to these loans, which are partially secured by pledges of a portion of the Tesla common stock currently owned by Mr. Musk. If the price of our common stock were to decline substantially, Mr. Musk may be forced by one or more of the banking institutions to sell shares of Tesla common stock to satisfy his loan obligations if he could not do so through other means. Any such sales could cause the price of our common stock to decline further.

Anti-takeover provisions contained in our governing documents, applicable laws and our convertible notes could impair a takeover attempt.

Our certificate of incorporation and bylaws afford certain rights and powers to our board of directors that could contribute to the delay or prevention of an acquisition that it deems undesirable. We are also subject to Section 203 of the Delaware General Corporation Law and other provisions of Delaware law that limit the ability of stockholders in certain situations to effect certain business combinations. In addition, the terms of our convertible notes require us to repurchase such notes in the event of a fundamental change, including a takeover of our company. Any of the foregoing provisions and terms that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We are headquartered in Palo Alto, California. Our principal facilities include a large number of properties in North America, Europe and Asia utilized for manufacturing and assembly, warehousing, engineering, retail and service locations, Supercharger sites, and administrative and sales offices. Our facilities are used to support both of our reporting segments, and are suitable and adequate for the conduct of our business. We primarily lease such facilities with the exception of some manufacturing facilities. The following table sets forth the location of our primary owned and leased manufacturing facilities.

Primary Manufacturing Facilities	Location	Owned or Leased
Fremont Factory	Fremont, California	Owned
Gigafactory Nevada	Sparks, Nevada	Owned
Gigafactory New York	Buffalo, New York	Leased
Gigafactory Shanghai	Shanghai, China	*

* We own the building and the land use rights with an initial term of 50 years. The land use rights are treated as operating lease right-of-use assets.

ITEM 3. LEGAL PROCEEDINGS

For a description of our material pending legal proceedings, please see Note 16, *Commitments and Contingencies*, to the consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

In addition, the following matters are being disclosed pursuant to Item 103 of Regulation S-K because they relate to environmental regulations and aggregate civil penalties could potentially exceed \$100,000.

The Bay Area Air Quality Management District (the “BAAQMD”) has issued notices of violation to us relating to air permitting for the Fremont Factory, but has not initiated formal proceedings. We dispute certain of these allegations and are working to resolve them with the BAAQMD. Further, we assert that there has been no related adverse community or environmental impact. While we cannot predict the outcome of this matter, including the final amount of any penalties, it is not expected to have a material adverse impact on our business.

We have also received an information request from the U.S. Environmental Protection Agency (the “EPA”) under Section 114(a) of the Clean Air Act of 1963, as amended (the “Clean Air Act”). The EPA is reviewing the compliance of our Fremont Factory operations with applicable requirements under the Clean Air Act, and we are working with the EPA in responding to this request. While the outcome of this matter cannot be determined at this time, it is not currently expected to have a material adverse impact on our business.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock has traded on The NASDAQ Global Select Market under the symbol "TSLA" since it began trading on June 29, 2010. Our initial public offering was priced at \$17.00 per share on June 28, 2010.

Holders

As of February 7, 2020, there were 1,685 holders of record of our common stock. A substantially greater number of holders of our common stock are "street name" or beneficial holders, whose shares are held by banks, brokers and other financial institutions.

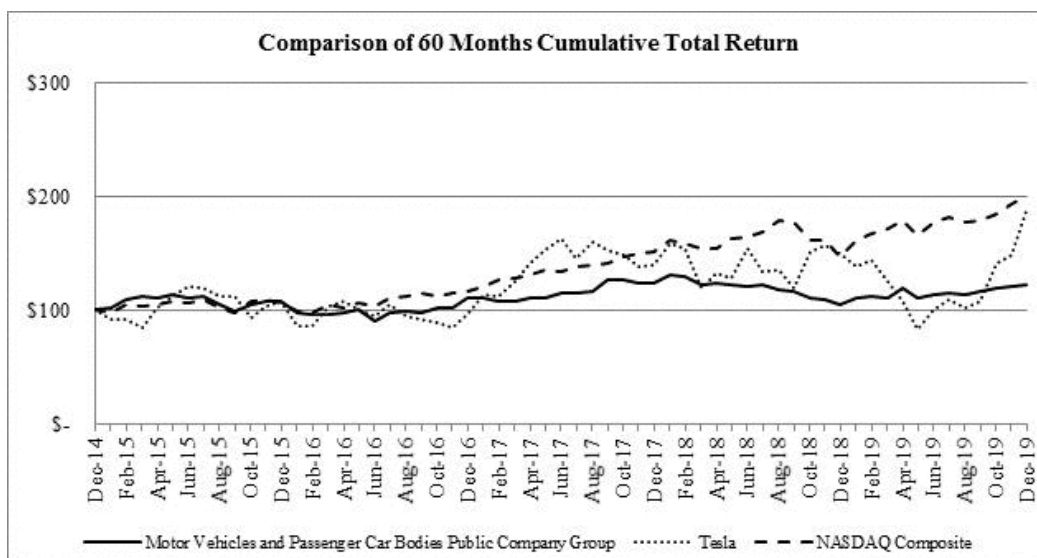
Dividend Policy

We have never declared or paid cash dividends on our common stock. We currently do not anticipate paying any cash dividends in the foreseeable future. Any future determination to declare cash dividends will be made at the discretion of our board of directors, subject to applicable laws, and will depend on our financial condition, results of operations, capital requirements, general business conditions and other factors that our board of directors may deem relevant.

Stock Performance Graph

This performance graph shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or incorporated by reference into any filing of Tesla, Inc. under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

The following graph shows a comparison, from January 1, 2015 through December 31, 2019, of the cumulative total return on our common stock, The NASDAQ Composite Index and a group of all public companies sharing the same SIC code as us, which is SIC code 3711, “Motor Vehicles and Passenger Car Bodies” (Motor Vehicles and Passenger Car Bodies Public Company Group). Such returns are based on historical results and are not intended to suggest future performance. Data for The NASDAQ Composite Index and the Motor Vehicles and Passenger Car Bodies Public Company Group assumes an investment of \$100 on January 1, 2015 and reinvestment of dividends. We have never declared or paid cash dividends on our common stock nor do we anticipate paying any such cash dividends in the foreseeable future.



Unregistered Sales of Equity Securities

None.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and the consolidated financial statements and the related notes included elsewhere in this Annual Report on Form 10-K and from the historical consolidated financial statements not included herein to fully understand factors that may affect the comparability of the information presented below (in millions, except per share data).

	Year Ended December 31,				
	2019 (3)	2018 (2)	2017	2016 (1)	2015
Consolidated Statements of Operations Data:					
Total revenues	\$ 24,578	\$ 21,461	\$ 11,759	\$ 7,000	\$ 4,046
Gross profit	\$ 4,069	\$ 4,042	\$ 2,223	\$ 1,599	\$ 924
Loss from operations	\$ (69)	\$ (388)	\$ (1,632)	\$ (667)	\$ (717)
Net loss attributable to common stockholders	\$ (862)	\$ (976)	\$ (1,962)	\$ (675)	\$ (889)
Net loss per share of common stock attributable to common stockholders, basic and diluted	\$ (4.92)	\$ (5.72)	\$ (11.83)	\$ (4.68)	\$ (6.93)
Weighted average shares used in computing net loss per share of common stock, basic and diluted	177	171	166	144	128
	As of December 31,				
	2019 (3)	2018 (2)	2017	2016 (1)	2015
Consolidated Balance Sheet Data:					
Working (deficit) capital	\$ 1,436	\$ (1,686)	\$ (1,104)	\$ 433	\$ (29)
Total assets	34,309	29,740	28,655	22,664	8,068
Total long-term obligations	15,532	13,434	15,348	10,923	4,126

- (1) We acquired SolarCity Corporation (“SolarCity”) on November 21, 2016. SolarCity’s financial results have been included in our financial results from the acquisition date as previously reported in our Annual Report on Form 10-K for the year ended December 31, 2016.
- (2) We adopted ASC 606 in 2018. Prior periods have not been revised. See Note 2, *Summary of Significant Accounting Policies*, of the notes to the consolidated financial statements included elsewhere in this Annual Report on Form 10-K for further details.
- (3) Includes the impact of the adoption of the new lease accounting standard in 2019. Prior periods have not been revised. See Note 2, *Summary of Significant Accounting Policies*, of the notes to the consolidated financial statements included elsewhere in this Annual Report on Form 10-K for further details.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with the consolidated financial statements and the related notes included elsewhere in this Annual Report on Form 10-K. For discussion related to changes in financial condition and the results of operations for fiscal year 2017-related items, refer to Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations in our Annual Report on Form 10-K for fiscal year 2018, which was filed with the Securities and Exchange Commission on February 19, 2019.

Overview and 2019 Highlights

Our mission is to accelerate the world's transition to sustainable energy. We design, develop, manufacture, lease and sell high-performance fully electric vehicles, solar energy generation systems and energy storage products. We also offer maintenance, installation, operation and other services related to our products.

Automotive

During 2019, we achieved annual vehicle delivery and production records of 367,656 and 365,232 total vehicles, respectively. We also laid the groundwork for our next phase of growth with the commencement of Model 3 production at Gigafactory Shanghai; preparations at the Fremont Factory for Model Y production, which commenced in the first quarter of 2020; the selection of Berlin, Germany as the site for our next factory for the European market; and the unveiling of Cybertruck. We also continued to enhance our user experience through improved Autopilot and FSD features, including the introduction of a new powerful on-board FSD computer and a new Smart Summon feature, and the expansion of a unique set of in-car entertainment options.

Energy Generation and Storage

We revamped key aspects of our solar operations in 2019 by streamlining traditionally complex ordering, permitting, installation and back-end service processes to enhance the customer experience, especially for retrofit solar installations. Our solar deployments grew approximately 48% and 26%, quarter-over-quarter, in the second half of the year. We also deployed 1.65 GWh of energy storage in 2019, more than the aggregate of all prior years. Finally, we further evolved our product offerings by launching the third generation of the Solar Roof, for which we are expanding both our manufacturing and installation capabilities, and Megapack, our largest utility-scale energy storage product to date.

Management Opportunities, Challenges and Risks and 2020 Outlook*Automotive—Production*

A key focus in 2020 will be our efforts towards establishing and expanding capacity for vehicle production at volume across three continents. At the Fremont Factory, we commenced Model Y production earlier than anticipated, and combined with Model 3, we have installed annual production capacity for 400,000 vehicles. We expect to further increase this capacity to 500,000 vehicles through the installation of additional equipment.

At Gigafactory Shanghai, we have installed annual production capacity for 150,000 Model 3 vehicles that we believe we will eventually be able to push to actual rates of production in excess of such number, subject to local production of battery packs, which we began ramping there later than other processes. We have commenced construction of the next phase of Gigafactory Shanghai to add Model Y manufacturing capacity at least equivalent to that for Model 3. To finance our construction and expansion, in December 2019 our local subsidiary entered into a RMB 9.0 billion (or the equivalent amount in U.S. dollars) fixed asset term facility and a RMB 2.25 billion (or the equivalent amount in U.S. dollars) working capital revolving facility, part of which was used to repay a RMB 3.5 billion bridge loan entered into in March 2019. We are supplementing such financing with limited direct capital expenditures.

Finally, we have selected Germany as the site of our next factory for manufacturing vehicles for the European market, due to its strong manufacturing and engineering presence. However, the construction of and ramp at Gigafactory Berlin, as well as at Gigafactory Shanghai, are subject to a number of uncertainties inherent in all new manufacturing operations, including ongoing compliance with regulatory requirements, maintenance of operational licenses and approvals for additional expansion, potential supply chain constraints, hiring, training and retention of qualified employees, and the pace of bringing production equipment and processes online with the capability to manufacture high-quality units at scale. Ultimately, achieving increased total vehicle production cost-effectively across all of our manufacturing operations will require that we timely address any bottlenecks that may arise as we ramp, establish and maintain sustained supplier capacity, and successfully utilize manufacturing processes at the maximum output rates that we have planned for them.

Automotive—Demand and Sales

As the automotive industry continues to validate and grow the market for electric vehicles, we are generating demand and new customers even without traditional marketing and with relatively low marketing costs, and in 2019 our orders shifted to originating mostly from new customers without prior reservations. Production at Gigafactory Shanghai allows us to offer Model 3 in China at competitive local pricing and more quickly, which should drive further demand and opportunity in the world's largest market for mid-sized premium sedans, and we expect a similar impact in China for Model Y when we commence production there of this offering in the popular compact SUV segment.

Moreover, the significant interest generated by our unveiling of Cybertruck demonstrated our brand visibility, innovation and viability across an increasing range of vehicle segments. Meanwhile, we are making our existing vehicles incrementally more compelling, including through a planned software update for FSD-enabled vehicles to react to traffic lights and stop signs and navigate city intersections, and additional functionality of both in-vehicle software and the Tesla mobile app.

On the other hand, we may be impacted by trade and environmental policies, political uncertainty and economic cycles involving geographic regions where we have significant operations, which are inherently unpredictable. Sales of vehicles in the automotive industry also tend to be cyclical in many markets, which may expose us to increased volatility. Specifically, it is uncertain as to how such macroeconomic factors will impact us as a company that has been experiencing growth and increasing market share in an industry that has globally been experiencing a recent decline in sales. Finally, we make certain adjustments to our prices from time to time in the ordinary course of business, including as we introduce new vehicles and variants and optimize the pricing among them. Such pricing changes may impact our vehicles' resale values, and in turn our operating results. For example, if price reductions result in an increase to our estimates of the volume of vehicles that may potentially be returned to us under pre-existing resale value guarantees provided to customers and partners for certain financing programs, our gross profits may be reduced.

Automotive—Deliveries and Customer Infrastructure

We continue to optimize our manufacturing and global delivery patterns to address higher volumes of our predominantly single-factory production at the Fremont Factory. We expect to alleviate any related issues through local production at Gigafactory Shanghai and eventually at Gigafactory Berlin.

We also continue to expand and invest in our servicing and charging locations and capabilities to keep pace with our customer vehicle fleet and ensure a convenient and efficient customer experience. However, if our customer vehicles, particularly in the rapidly growing Model 3 fleet, experience unexpected reliability issues, it could outpace and overburden our servicing capabilities and parts inventory.

Energy Generation and Storage Demand, Production and Deployment

We expect to continue to grow our retrofit solar system deployments as we execute our new strategy, including through compelling financing options such as a subscription-based offering, which is currently available in California.

We are focused on training our personnel and third party partners to ramp installations of our Solar Roof, and are also hiring rapidly for its ongoing manufacturing ramp at Gigafactory New York. We expect such ramp will support our significant operations and our compliance with minimum hiring and cumulative investment targets under our agreement with the SUNY Foundation related to the construction and use of Gigafactory New York. However, if our expectations as to the costs and timelines of our investment and operations at Buffalo or our production ramp of the Solar Roof prove incorrect, we may incur additional expenses or substantial payments to the SUNY Foundation.

Finally, with the introduction of our 3 MWh Megapack, we now offer an even greater variety of scalable energy storage products with a wide range of markets and applications, and expect this product to drive additional interest from global project developers and utilities.

Trends in Cash Flow, Capital Expenditures and Operating Expenses

Our capital expenditures are difficult to project beyond the short term, given the number and breadth of our core projects at any given time. For example, the curve of any new product ramp, such as for Model Y and the Solar Roof, is inherently subject to uncertainty of timing, and if we are able to meet various milestones along such ramp more quickly than expected, our capital expenditures may be accelerated. We also continuously evaluate, and as appropriate adjust, our capital expenditures based on, among other things: our manufacturing plans for our various products, which we may rebalance from time to time based on the mix of demand among them and other contingent factors; the pace and prioritization of current projects under development; and the addition of any new projects. Moreover, we are generally increasing the capital efficiency of our projects with experience, and we may find that our actual capital expenditures on new projects are different than previously expected.

Subject to the above, considering the expected pace of the manufacturing ramps for our products, construction and expansion of our factories, and pipeline of announced projects under development, and consistent with our current strategy of using partners to manufacture battery cells, as well as considering all other infrastructure growth, we currently expect our average annual capital expenditures in 2020 and the two succeeding fiscal years to be \$2.5 billion to \$3.5 billion.

We expect operating expenses as a percentage of revenue to continue to decrease in the future as we focus on increasing operational efficiency and process automation, as well as from increases in expected overall revenues from our expanding sales. In particular, our efforts to scale down and optimize our cost structure relative to the size of our business have already manifested in total operating expenses decreasing from \$4.4 billion to \$4.1 billion from fiscal year 2018 to fiscal year 2019, including restructuring and other charges. Meanwhile, our total revenues increased from \$21.5 billion to \$24.6 billion in the same period.

In March 2018, our stockholders approved the 2018 CEO Performance Award, with vesting contingent on achieving market capitalization and operational milestones. We will incur significant non-cash stock-based compensation expense for each tranche under this award after the related operational milestone initially becomes probable of being met, and if later than the grant date, we will also have to record a cumulative catch-up expense at such time. Such catch-up expense may be material depending on the length of time elapsed from the grant date. For example, in the fourth quarter of 2019, as the result of an additional operational milestone becoming probable of achievement, we recorded a cumulative catch-up expense of \$72 million for service provided from the grant date. Moreover, as the expense for a tranche is recorded over the longer of (i) the expected achievement period of the relevant operational milestone and (ii) only if the related market capitalization milestone has not been achieved, its expected achievement period, the achievement of a market capitalization milestone earlier than expected may accelerate the rate at which such expense is recognized. Upon vesting of a tranche, all remaining associated expense will be recognized immediately. See Note 14, *Equity Incentive Plans—2018 CEO Performance Award*, to the consolidated financial statements included elsewhere in this Annual Report on Form 10-K for further details regarding the stock-based compensation relating to the 2018 CEO Performance Award.

Critical Accounting Policies and Estimates

The consolidated financial statements are prepared in accordance with accounting principles generally accepted in the U.S. (“GAAP”). The preparation of the consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, costs and expenses and related disclosures. We base our estimates on historical experience, as appropriate, and on various other assumptions that we believe to be reasonable under the circumstances. Changes in the accounting estimates are reasonably likely to occur from period to period. Accordingly, actual results could differ significantly from the estimates made by our management. We evaluate our estimates and assumptions on an ongoing basis. To the extent that there are material differences between these estimates and actual results, our future financial statement presentation, financial condition, results of operations and cash flows will be affected. We believe that the following critical accounting policies involve a greater degree of judgment and complexity than our other accounting policies. Accordingly, these are the policies we believe are the most critical to understanding and evaluating the consolidated financial condition and results of operations.

Revenue Recognition

Adoption of new revenue standard

On January 1, 2018, we adopted ASC 606, *Revenue from Contracts with Customers*, (“new revenue standard”) using the modified retrospective method. The new revenue standard had a material impact in our consolidated financial statements. For further discussion, refer to Note 2, *Summary of Significant Accounting Policies*, to the consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

Automotive Segment

Automotive Sales Revenue

Automotive Sales without Resale Value Guarantee

Automotive sales revenue includes revenues related to deliveries of new vehicles and pay-per-use charges, and specific other features and services that meet the definition of a performance obligation under the new revenue standard, including access to our Supercharger network, internet connectivity, Autopilot, FSD features and over-the-air software updates. We recognize revenue on automotive sales upon delivery to the customer, which is when the control of a vehicle transfers. Payments are typically received at the point control transfers or in accordance with payment terms customary to the business. Other features and services such as access to our Supercharger network, internet connectivity and over-the-air software updates are provisioned upon control transfer of a vehicle and recognized over time on a straight-line basis as we have a stand-ready obligation to deliver such services to the customer. We recognize revenue related to these other features and services over the performance period, which is generally the expected ownership life of the vehicle or the eight-year life of the vehicle. Revenue related to Autopilot and FSD features is recognized when functionality is delivered to the customer. For our obligations related to automotive sales, we estimate standalone selling price by considering costs used to develop and deliver the service, third-party pricing of similar options and other information that may be available.

At the time of revenue recognition, we reduce the transaction price and record a sales return reserve against revenue for estimated variable consideration related to future product returns based on historical experience. In addition, any fees that are paid or payable by us to a customer’s lender when we arrange the financing are recognized as an offset against automotive sales revenue.

Costs to obtain a contract mainly relate to commissions paid to our sales personnel for the sale of vehicles. Commissions are not paid on other obligations such as access to our Supercharger network, internet connectivity, Autopilot, FSD features and over-the-air software updates. As our contract costs related to automotive sales are typically fulfilled within one year, the costs to obtain a contract are expensed as incurred. Amounts billed to customers related to shipping and handling are classified as automotive revenue, and we have elected to recognize the cost for freight and shipping when control over vehicles, parts, or accessories have transferred to the customer as an expense in cost of revenues. Our policy is to exclude taxes collected from a customer from the transaction price of automotive contracts.

Automotive Sales with Resale Value Guarantee or a Buyback Option

We offer resale value guarantees or similar buy-back terms to certain international customers who purchase vehicles and who finance their vehicles through one of our specified commercial banking partners. We also offer resale value guarantees in connection with automotive sales to certain leasing partners. Under these programs, we receive full payment for the vehicle sales price at the time of delivery and our counterparty has the option of selling their vehicle back to us during the guarantee period, which currently is generally at the end of the term of the applicable loan or financing program, for a pre-determined resale value.

With the exception of two programs which are discussed within the *Automotive Leasing* section, we recognize revenue when control transfers upon delivery to customers in accordance with the new revenue standard as a sale with a right of return as we do not believe the customer has a significant economic incentive to exercise the resale value guarantee provided to them. The process to determine whether there is a significant economic incentive includes a comparison of a vehicle's estimated market value at the time the option is exercisable with the guaranteed resale value to determine the customer's economic incentive to exercise. The performance obligations and the pattern of recognizing automotive sales with resale value guarantees are consistent with automotive sales without resale value guarantees with the exception of our estimate for sales return reserve. Sales return reserves for automotive sales with resale value guarantees are estimated based on historical experience plus consideration for expected future market values. On a quarterly basis, we assess the estimated market values of vehicles under our buyback options program to determine whether there have been changes to the likelihood of future product returns. As we accumulate more data related to the buyback values of our vehicles or as market conditions change, there may be material changes to their estimated values. The two programs that are still being recorded as operating leases are discussed in further detail below in *Vehicle Sales to Leasing Partners with a Resale Value Guarantee and a Buyback Option* and *Vehicle Sales to Customers with a Resale Value Guarantee where Exercise is Probable*.

Prior to the adoption of the new revenue standard, all transactions with resale value guarantees were recorded as operating leases. The amount of sale proceeds equal to the resale value guarantee was deferred until the guarantee expired or was exercised. For certain transactions that were considered interest bearing collateralized borrowings as required under ASC 840, *Leases* prior to January 1, 2019, we also accrued interest expense based on our borrowing rate. The remaining sale proceeds were deferred and recognized on a straight-line basis over the stated guarantee period to automotive leasing revenue. The guarantee period expired at the earlier of the end of the guarantee period or the pay-off of the initial loan. We capitalized the cost of these vehicles on the consolidated balance sheet as operating lease vehicles, net, and depreciated their value, less estimated residual value, to cost of automotive leasing revenue over the same period.

In cases where our counterparty retained ownership of the vehicle at the end of the guarantee period, the resale value guarantee liability and any remaining deferred revenue balances related to the vehicle were settled to automotive leasing revenue, and the net book value of the leased vehicle was expensed to cost of automotive leasing revenue. If our counterparty returned the vehicle to us during the guarantee period, we purchased the vehicle from our counterparty in an amount equal to the resale value guarantee and settled any remaining deferred balances to automotive leasing revenue, and we reclassified the net book value of the vehicle on the consolidated balance sheet to used vehicle inventory.

Automotive Regulatory Credits

In connection with the production and delivery of our zero emission vehicles in global markets, we have earned and will continue to earn various tradable automotive regulatory credits. We have sold these credits, and will continue to sell future credits, to automotive companies and other regulated entities who can use the credits to comply with emission standards and other regulatory requirements. For example, under California's Zero Emission Vehicle Regulation and those of states that have adopted California's standard, vehicle manufacturers are required to earn or purchase credits, referred to as ZEV credits, for compliance with their annual regulatory requirements. These laws provide that automakers may bank or sell to other regulated parties their excess credits if they earn more credits than the minimum quantity required by those laws. We also earn other types of saleable regulatory credits in the United States and abroad, including greenhouse gas, fuel economy and clean fuels credits. Payments for regulatory credits are typically received at the point control transfers to the customer, or in accordance with payment terms customary to the business. We recognize revenue on the sale of automotive regulatory credits at the time control of the regulatory credits is transferred to the purchasing party as automotive revenue in the consolidated statement of operations.

Automotive Leasing Revenue

Automotive leasing revenue includes revenue recognized under lease accounting guidance for our direct leasing programs as well as the two programs with resale value guarantees which continue to qualify for operating lease treatment. Prior to the adoption of the new revenue standard, all programs with resale value guarantees were accounted for as operating leases.

Direct Vehicle Leasing Program

We have outstanding leases under our direct vehicle leasing programs in the U.S., Canada and in certain countries in Europe. As of December 31, 2019, the direct vehicle leasing program is offered for all new Model S, Model X and Model 3 vehicles in the U.S. and new Model S and Model X vehicles in Canada. Qualifying customers are permitted to lease a vehicle directly from Tesla for up to 48 months. At the end of the lease term, customers are required to return the vehicles to us or for Model S and Model X leases, may opt to purchase the vehicles for a pre-determined residual value. We account for these leasing transactions as operating leases. We record leasing revenues to automotive leasing revenue on a straight-line basis over the contractual term, and we record the depreciation of these vehicles to cost of automotive leasing revenue.

We capitalize shipping costs and initial direct costs such as the incremental cost of referral fees and sales commissions from the origination of automotive lease agreements as an element of operating lease vehicles, net, and subsequently amortize these costs over the term of the related lease agreement. Our policy is to exclude taxes collected from a customer from the transaction price of automotive contracts.

Vehicle Sales to Leasing Partners with a Resale Value Guarantee and a Buyback Option

We offer buyback options in connection with automotive sales with resale value guarantees with certain leasing partner sales in the United States. These transactions entail a transfer of leases, which we have originated with an end-customer, to our leasing partner. As control of the vehicles has not been transferred in accordance with the new revenue standard, these transactions were accounted for as interest bearing collateralized borrowings in accordance with ASC 840, *Leases*, prior to January 1, 2019. Under this program, cash is received for the full price of the vehicle and the collateralized borrowing value is generally recorded within resale value guarantees and the customer upfront down payment is recorded within deferred revenue. We amortize the deferred revenue amount to automotive leasing revenue on a straight-line basis over the option period and accrue interest expense based on our borrowing rate. We capitalize vehicles under this program to operating lease vehicles, net, on the consolidated balance sheets, and we record depreciation from these vehicles to cost of automotive leasing revenue during the period the vehicle is under a lease arrangement. Cash received for these vehicles, net of revenue recognized during the period, is classified as collateralized lease (repayments) borrowings within cash flows from financing activities in the consolidated statements of cash flows. With the adoption of ASC 842 on January 1, 2019, all new agreements under this program are accounted for as operating leases under ASC 842 and there was no material change in the timing and amount of revenue recognized over the term. Consequently, any cash flows for new agreements are classified as operating cash activities on the consolidated statements of cash flows.

At the end of the lease term, we settle our liability in cash by either purchasing the vehicle from the leasing partner for the buyback option amount or paying a shortfall to the option amount the leasing partner may realize on the sale of the vehicle. Any remaining balances within deferred revenue and resale value guarantee will be settled to automotive leasing revenue. The end customers can extend the lease for a period of up to 6 months. In cases where the leasing partner retains ownership of the vehicle after the end of our option period, we expense the net value of the leased vehicle to cost of automotive leasing revenue.

Vehicle Sales to Customers with a Resale Value Guarantee where Exercise is Probable

For certain international programs where we have offered resale value guarantees to certain customers who purchased vehicles and where we expect the customer has a significant economic incentive to exercise the resale value guarantee provided to them, we continue to recognize these transactions as operating leases. The process to determine whether there is a significant economic incentive includes a comparison of a vehicle's estimated market value at the time the option is exercisable with the guaranteed resale value to determine the customer's economic incentive to exercise. We have not sold any vehicles under this program since the first half of 2017 and all current period activity relates to the exercise or cancellation of active transactions. The amount of sale proceeds equal to the resale value guarantee is deferred until the guarantee expires or is exercised. The remaining sale proceeds are deferred and recognized on a straight-line basis over the stated guarantee period to automotive leasing revenue. The guarantee period expires at the earlier of the end of the guarantee period or the pay-off of the initial loan. We capitalize the cost of these vehicles on the consolidated balance sheet as operating lease vehicles, net, and depreciate their value, less salvage value, to cost of automotive leasing revenue over the same period.

In cases where a customer retains ownership of a vehicle at the end of the guarantee period, the resale value guarantee liability and any remaining deferred revenue balances related to the vehicle are settled to automotive leasing revenue, and the net book value of the leased vehicle is expensed to cost of automotive leasing revenue. If a customer returns the vehicle to us during the guarantee period, we purchase the vehicle from the customer in an amount equal to the resale value guarantee and settle any remaining deferred balances to automotive leasing revenue, and we reclassify the net book value of the vehicle on the consolidated balance sheets to used vehicle inventory.

*Energy Generation and Storage Segment*Energy Generation and Storage Sales

Energy generation and storage sales revenue consists of the sale of solar energy systems and energy storage systems to residential, small commercial, and large commercial and utility grade customers, including solar subscription-based arrangements. Upon adoption of ASC 842, energy generation and storage sales revenue includes agreements for solar energy systems and PPAs that commence after January 1, 2019, as these are now accounted for under the new revenue standard. Sales of solar energy systems to residential and small scale commercial customers consist of the engineering, design, and installation of the system. Post-installation, residential and small scale commercial customers receive a proprietary monitoring system that captures and displays historical energy generation data. Residential and small scale commercial customers pay the full purchase price of the solar energy system upfront. Revenue for the design and installation obligation is recognized when control transfers, which is when we install a solar energy system and the system passes inspection by the utility or the authority having jurisdiction. Revenue for the monitoring service is recognized ratably as a stand-ready obligation over the warranty period of the solar energy system. Sales of energy storage systems to residential and small scale commercial customers consist of the installation of the energy storage system and revenue is recognized when control transfers, which is when the product has been delivered or, if we are performing installation, when installed and commissioned. Payment for such storage systems is made upon invoice or in accordance with payment terms customary to the business.

For large commercial and utility grade solar energy system and energy storage system sales which consist of the engineering, design, and installation of the system, customers make milestone payments that are consistent with contract-specific phases of a project. Revenue from such contracts is recognized over time using the percentage of completion method based on cost incurred as a percentage of total estimated contract costs for energy storage system sales and as a percentage of total estimated labor hours for solar energy system sales. Certain large-scale commercial and utility grade solar energy system and energy storage system sales also include operations and maintenance service which are negotiated with the design and installation contracts and are thus considered to be a combined contract with the design and installation service. For certain large commercial and utility grade solar energy systems and energy storage systems where the percentage of completion method does not apply, revenue is recognized when control transfers, which is when the product has been delivered to the customer and commissioned for energy storage systems and when the project has received permission to operate from the utility for solar energy systems. Operations and maintenance service revenue is recognized ratably over the respective contract term for solar energy system sales and upon delivery of the service for energy storage system sales. Customer payments for such services are usually paid annually or quarterly in advance.

In instances where there are multiple performance obligations in a single contract, we allocate the consideration to the various obligations in the contract based on the relative standalone selling price method. Standalone selling prices are estimated based on estimated costs plus margin or using market data for comparable products. Costs incurred on the sale of residential installations before the solar energy systems are completed are included as work in process within inventory in the consolidated balance sheets. However, any fees that are paid or payable by us to a solar loan lender would be recognized as an offset against revenue. Costs to obtain a contract relate mainly to commissions paid to our sales personnel related to the sale of solar energy systems and energy storage systems. As our contract costs related to solar energy system and energy storage system sales are typically fulfilled within one year, the costs to obtain a contract are expensed as incurred.

As part of our solar energy system and energy storage system contracts, we may provide the customer with performance guarantees that warrant that the underlying system will meet or exceed the minimum energy generation or retention requirements specified in the contract. In certain instances, we may receive a bonus payment if the system performs above a specified level. Conversely, if a solar energy system or energy storage system does not meet the performance guarantee requirements, we may be required to pay liquidated damages. Other forms of variable consideration related to our large commercial and utility grade solar energy system and energy storage system contracts include variable customer payments that will be made based on our energy market participation activities. Such guarantees and variable customer payments represent a form of variable consideration and are estimated at contract inception at their most likely amount and updated at the end of each reporting period as additional performance data becomes available. Such estimates are included in the transaction price only to the extent that it is probable a significant reversal of revenue will not occur.

We record as deferred revenue any non-refundable amounts that are collected from customers related to fees charged for prepayments and remote monitoring service and operations and maintenance service, which is recognized as revenue ratably over the respective customer contract term.

Energy Generation and Storage Leasing

For revenue arrangements where we are the lessor under operating lease agreements for energy generation and storage products, we record lease revenue from minimum lease payments, including upfront rebates and incentives earned from such systems, on a straight-line basis over the life of the lease term, assuming all other revenue recognition criteria have been met. The difference between the payments received and the revenue recognized is recorded as deferred revenue on the consolidated balance sheet.

For solar energy systems where customers purchase electricity from us under PPAs prior to January 1, 2019, we have determined that these agreements should be accounted for as operating leases pursuant to ASC 840. Revenue is recognized based on the amount of electricity delivered at rates specified under the contracts, assuming all other revenue recognition criteria are met.

We record as deferred revenue any amounts that are collected from customers, including lease prepayments, in excess of revenue recognized and operations and maintenance service, which is recognized as revenue ratably over the respective customer contract term. Deferred revenue also includes the portion of rebates and incentives received from utility companies and various local and state government agencies, which is recognized as revenue over the lease term.

We capitalize initial direct costs from the execution of agreements for solar energy systems and PPAs, which include the referral fees and sales commissions, as an element of solar energy systems, net, and subsequently amortize these costs over the term of the related agreements.

Inventory Valuation

Inventories are stated at the lower of cost or net realizable value. Cost is computed using standard cost for vehicles and energy storage products, which approximates actual cost on a first-in, first-out basis. In addition, cost for solar energy systems is recorded using actual cost. We record inventory write-downs for excess or obsolete inventories based upon assumptions about current and future demand forecasts. If our inventory on-hand is in excess of our future demand forecast, the excess amounts are written-off.

We also review our inventory to determine whether its carrying value exceeds the net amount realizable upon the ultimate sale of the inventory. This requires us to determine the estimated selling price of our vehicles less the estimated cost to convert the inventory on-hand into a finished product. Once inventory is written-down, a new, lower cost basis for that inventory is established and subsequent changes in facts and circumstances do not result in the restoration or increase in that newly established cost basis.

Should our estimates of future selling prices or production costs change, additional and potentially material increases to this reserve may be required. A small change in our estimates may result in a material charge to our reported financial results.

Warranties

We provide a manufacturer's warranty on all new and used vehicles and production powertrain components and systems we sell. In addition, we also provide a warranty on the installation and components of the energy generation and storage systems we sell for periods typically between 10 to 25 years. We accrue a warranty reserve for the products sold by us, which includes our best estimate of the projected costs to repair or replace items under warranties and recalls when identified. These estimates are based on actual claims incurred to date and an estimate of the nature, frequency and costs of future claims. These estimates are inherently uncertain given our relatively short history of sales, and changes to our historical or projected warranty experience may cause material changes to the warranty reserve in the future. The warranty reserve does not include projected warranty costs associated with our vehicles subject to lease accounting and our solar energy systems under lease contracts or PPAs, as the costs to repair these warranty claims are expensed as incurred. The portion of the warranty reserve expected to be incurred within the next 12 months is included within accrued liabilities and other, while the remaining balance is included within other long-term liabilities on the consolidated balance sheets. Warranty expense is recorded as a component of cost of revenues in the consolidated statements of operations.

Stock-Based Compensation

We use the fair value method of accounting for our stock options and restricted stock units ("RSUs") granted to employees and our employee stock purchase plan (the "ESPP") to measure the cost of employee services received in exchange for the stock-based awards. The fair value of stock option awards with only service and/or performance conditions and ESPP is estimated on the grant or offering date using the Black-Scholes option-pricing model. The Black-Scholes option-pricing model requires inputs such as the risk-free interest rate, expected term and expected volatility. These inputs are subjective and generally require significant judgment. The fair value of RSUs is measured on the grant date based on the closing fair market value of our common stock. The resulting cost is recognized over the period during which an employee is required to provide service in exchange for the awards, usually the vesting period, which is generally four years for stock options and RSUs and six months for the ESPP. Stock-based compensation expense is recognized on a straight-line basis, net of actual forfeitures in the period.

For performance-based awards, stock-based compensation expense is recognized over the expected performance achievement period of individual performance milestones when the achievement of each individual performance milestone becomes probable. For performance-based awards with a vesting schedule based entirely on the attainment of both performance and market conditions, stock-based compensation expense associated with each tranche is recognized over the longer of (i) the expected achievement period for the operational milestone for such tranche and (ii) the expected achievement period for the related market capitalization milestone determined on the grant date, beginning at the point in time when the relevant operational milestone is considered probable of being met. If such operational milestone becomes probable any time after the grant date, we will recognize a cumulative catch-up expense from the grant date to that point in time. If the related market capitalization milestone is achieved earlier than its expected achievement period and the achievement of the related operational milestone, then the stock-based compensation expense will be recognized over the expected achievement period for the operational milestone, which may accelerate the rate at which such expense is recognized. If additional operational milestones become probable, stock-based compensation expense will be recorded in the period it becomes probable including cumulative catch-up expense for the service provided since the grant date. The fair value of such awards is estimated on the grant date using Monte Carlo simulations.

As we accumulate additional employee stock-based awards data over time and as we incorporate market data related to our common stock, we may calculate significantly different volatilities and expected lives, which could materially impact the valuation of our stock-based awards and the stock-based compensation expense that we will recognize in future periods. Stock-based compensation expense is recorded in cost of revenues, research and development expense and selling, general and administrative expense in the consolidated statements of operations.

Income Taxes

We are subject to federal and state taxes in the U.S. and in many foreign jurisdictions. Significant judgment is required in determining our provision for income taxes, our deferred tax assets and liabilities and any valuation allowance recorded against our net deferred tax assets. We make these estimates and judgments about our future taxable income that are based on assumptions that are consistent with our future plans. Tax laws, regulations, and administrative practices may be subject to change due to economic or political conditions including fundamental changes to the tax laws applicable to corporate multinationals. The U.S., many countries in the European Union and a number of other countries are actively considering changes in this regard. As of December 31, 2019, we had recorded a full valuation allowance on our net U.S. deferred tax assets because we expect that it is more likely than not that our U.S. deferred tax assets will not be realized in the foreseeable future. Should the actual amounts differ from our estimates, the amount of our valuation allowance could be materially impacted.

Furthermore, significant judgment is required in evaluating our tax positions. In the ordinary course of business, there are many transactions and calculations for which the ultimate tax settlement is uncertain. As a result, we recognize the effect of this uncertainty on our tax attributes based on our estimates of the eventual outcome. These effects are recognized when, despite our belief that our tax return positions are supportable, we believe that it is more likely than not that those positions may not be fully sustained upon review by tax authorities. We are required to file income tax returns in the U.S. and various foreign jurisdictions, which requires us to interpret the applicable tax laws and regulations in effect in such jurisdictions. Such returns are subject to audit by the various federal, state and foreign taxing authorities, who may disagree with respect to our tax positions. We believe that our consideration is adequate for all open audit years based on our assessment of many factors, including past experience and interpretations of tax law. We review and update our estimates in light of changing facts and circumstances, such as the closing of a tax audit, the lapse of a statute of limitations or a change in estimate. To the extent that the final tax outcome of these matters differs from our expectations, such differences may impact income tax expense in the period in which such determination is made. The eventual impact on our income tax expense depends in part if we still have a valuation allowance recorded against our deferred tax assets in the period that such determination is made.

Principles of Consolidation

The consolidated financial statements reflect our accounts and operations and those of our subsidiaries in which we have a controlling financial interest. In accordance with the provisions of ASC 810, *Consolidation*, we consolidate any variable interest entity (“VIE”) of which we are the primary beneficiary. We form VIEs with our financing fund investors in the ordinary course of business in order to facilitate the funding and monetization of certain attributes associated with our solar energy systems and leases under our direct vehicle leasing programs. The typical condition for a controlling financial interest ownership is holding a majority of the voting interests of an entity; however, a controlling financial interest may also exist in entities, such as VIEs, through arrangements that do not involve controlling voting interests. ASC 810 requires a variable interest holder to consolidate a VIE if that party has the power to direct the activities of the VIE that most significantly impact the VIE’s economic performance and the obligation to absorb losses of the VIE that could potentially be significant to the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE. We do not consolidate a VIE in which we have a majority ownership interest when we are not considered the primary beneficiary. We have determined that we are the primary beneficiary of all the VIEs. We evaluate our relationships with all the VIEs on an ongoing basis to ensure that we continue to be the primary beneficiary. All intercompany transactions and balances have been eliminated upon consolidation.

Noncontrolling Interests and Redeemable Noncontrolling Interests

Noncontrolling interests and redeemable noncontrolling interests represent third-party interests in the net assets under certain funding arrangements, or funds, that we enter into to finance the costs of solar energy systems and vehicles under operating leases. We have determined that the contractual provisions of the funds represent substantive profit sharing arrangements. We have further determined that the appropriate methodology for calculating the noncontrolling interest and redeemable noncontrolling interest balances that reflects the substantive profit sharing arrangements is a balance sheet approach using the hypothetical liquidation at book value (“HLBV”) method. We, therefore, determine the amount of the noncontrolling interests and redeemable noncontrolling interests in the net assets of the funds at each balance sheet date using the HLBV method, which is presented on the consolidated balance sheet as noncontrolling interests in subsidiaries and redeemable noncontrolling interests in subsidiaries. Under the HLBV method, the amounts reported as noncontrolling interests and redeemable noncontrolling interests in the consolidated balance sheet represent the amounts the third-parties would hypothetically receive at each balance sheet date under the liquidation provisions of the funds, assuming the net assets of the funds were liquidated at their recorded amounts determined in accordance with GAAP and with tax laws effective at the balance sheet date and distributed to the third-parties. The third-parties’ interests in the results of operations of the funds are determined as the difference in the noncontrolling interest and redeemable noncontrolling interest balances in the consolidated balance sheets between the start and end of each reporting period, after taking into account any capital transactions between the funds and the third-parties. However, the redeemable noncontrolling interest balance is at least equal to the redemption amount. The redeemable noncontrolling interest balance is presented as temporary equity in the mezzanine section of the consolidated balance sheet since these third-parties have the right to redeem their interests in the funds for cash or other assets.

Results of Operations*Revenues*

(Dollars in millions)	Year Ended December 31,			2019 vs. 2018 Change		2018 vs. 2017 Change	
	2019	2018	2017	\$	%	\$	%
Automotive sales	\$ 19,952	\$ 17,632	\$ 8,535	\$ 2,320	13%	\$ 9,097	107%
Automotive leasing	869	883	1,107	(14)	-2%	(224)	-20%
Total automotive revenues	20,821	18,515	9,642	2,306	12%	8,873	92%
Services and other	2,226	1,391	1,001	835	60%	390	39%
Total automotive & services and other segment revenue	23,047	19,906	10,643	3,141	16%	9,263	87%
Energy generation and storage segment revenue	1,531	1,555	1,116	(24)	-2%	439	39%
Total revenues	\$ 24,578	\$ 21,461	\$ 11,759	\$ 3,117	15%	\$ 9,702	83%

Automotive & Services and Other Segment

Automotive sales revenue includes revenues related to cash sales of new Model S, Model X and Model 3 vehicles, including access to our Supercharger network, internet connectivity, Autopilot and FSD features and over-the-air software updates, as well as sales of regulatory credits to other automotive manufacturers. Cash deliveries are vehicles that are not subject to lease accounting.

Automotive leasing revenue includes the amortization of revenue for Model S, Model X and Model 3 vehicles under direct lease agreements as well as those sold with resale value guarantees accounted for as operating leases under lease accounting. We began offering direct leasing for Model 3 vehicles in the second quarter of 2019.

Services and other revenue consists of non-warranty after-sales vehicle services, sales of used vehicles, retail merchandise, sales by our acquired subsidiaries to third party customers, and vehicle insurance revenue.

2019 Compared to 2018

Automotive sales revenue increased \$2.32 billion, or 13%, in the year ended December 31, 2019 as compared to the year ended December 31, 2018, primarily due to an increase of 137,969 Model 3 cash deliveries from production scaling and an increase of \$175 million in sales of regulatory credits to \$594 million. The increase was partially offset by a decrease of 30,487 Model S and Model X cash deliveries. The deliveries in the year ended December 31, 2019 were at lower average selling prices than the prior year due to price adjustments we made to our vehicle offerings and the introduction of lower end Model 3 trims in 2019. Due to the price adjustments, we estimated that there is a greater likelihood that customers will exercise their buyback options that were provided prior to such adjustments. As a result, along with the estimated variable consideration related to normal future product returns for vehicles sold under the buyback options program, we adjusted our sales return reserve on vehicles previously sold under our buyback options program resulting in a reduction of automotive sales revenues of \$555 million. Refer to Note 2, *Summary of Significant Accounting Policies*, to the consolidated statements included elsewhere in this Annual Report on Form 10-K.

Automotive leasing revenue decreased \$14 million, or 2%, in the year ended December 31, 2019 as compared to the year ended December 31, 2018. The decrease was primarily due to a decrease in cumulative vehicles under our resale value guarantee leasing programs which are accounted for as operating leases. The decrease was partially offset by an increase in cumulative vehicles under our direct vehicle leasing program, partially due to the introduction of Model 3 direct leasing in the second quarter of 2019.

Services and other revenue increased \$835 million, or 60%, in the year ended December 31, 2019 as compared to the year ended December 31, 2018. The increase was primarily due to an increase in used vehicle sales from an increased volume of trade-in vehicles, partially offset by lower average selling prices for traded-in Tesla vehicles due to price adjustments we made to our vehicle offerings in 2019. Additionally, there was an increase in non-warranty maintenance services revenue as our fleet continues to grow.

Energy Generation and Storage Segment

Energy generation and storage revenue includes sales and leasing of solar energy generation and energy storage products, services related to such products, and sales of solar energy systems incentives.

2019 Compared to 2018

Energy generation and storage revenue decreased by \$24 million, or 2%, in the year ended December 31, 2019 as compared to the year ended December 31, 2018, primarily due to decreases in deployments of solar cash and loan jobs partially offset increases in deployments of Powerwall, Powerpack, and Megapack.

Cost of Revenues and Gross Margin

(Dollars in millions)	Year Ended December 31,			2019 vs. 2018 Change		2018 vs. 2017 Change	
	2019	2018	2017	\$	%	\$	%
Cost of revenues							
Automotive sales	\$ 15,939	\$ 13,686	\$ 6,725	\$ 2,253	16%	\$ 6,961	104%
Automotive leasing	459	488	708	(29)	-6%	(220)	-31%
Total automotive cost of revenues	16,398	14,174	7,433	2,224	16%	6,741	91%
Services and other	2,770	1,880	1,229	890	47%	651	53%
Total automotive & services and other segment cost of revenues	19,168	16,054	8,662	3,114	19%	7,392	85%
Energy generation and storage segment	1,341	1,365	874	(24)	-2%	491	56%
Total cost of revenues	\$ 20,509	\$ 17,419	\$ 9,536	\$ 3,090	18%	\$ 7,883	83%
Gross profit total automotive	\$ 4,423	\$ 4,341	\$ 2,209				
Gross margin total automotive	21%	23%	23%				
Gross profit total automotive & services and other segment	\$ 3,879	\$ 3,852	\$ 1,981				
Gross margin total automotive & services and other segment	17%	19%	19%				
Gross profit energy generation and storage segment	\$ 190	\$ 190	\$ 242				
Gross margin energy generation and storage segment	12%	12%	22%				
Total gross profit	\$ 4,069	\$ 4,042	\$ 2,223				
Total gross margin	17%	19%	19%				

Automotive & Services and Other Segment

Cost of automotive sales revenue includes direct parts, material and labor costs, manufacturing overhead, including depreciation costs of tooling and machinery, shipping and logistic costs, vehicle connectivity costs, allocations of electricity and infrastructure costs related to our Supercharger network, and reserves for estimated warranty expenses. Cost of automotive sales revenues also includes adjustments to warranty expense and charges to write down the carrying value of our inventory when it exceeds its estimated net realizable value and to provide for obsolete and on-hand inventory in excess of forecasted demand.

Cost of automotive leasing revenue includes primarily the amortization of operating lease vehicles over the lease term, as well as warranty expenses recognized as incurred. Cost of automotive leasing revenue also includes vehicle connectivity costs and allocations of electricity and infrastructure costs related to our Supercharger network for vehicles under our leasing programs.

Costs of services and other revenue includes costs associated with providing non-warranty after-sales services, costs to acquire and certify used vehicles, costs for retail merchandise, and costs to provide vehicle insurance. Cost of services and other revenue also includes direct parts, material and labor costs, manufacturing overhead associated with the sales by our acquired subsidiaries to third party customers.

2019 Compared to 2018

Cost of automotive sales revenue increased \$2.25 billion, or 16%, in the year ended December 31, 2019 as compared to the year ended December 31, 2018, primarily due to an increase of 137,969 Model 3 cash deliveries and higher average Model S and Model X costs per unit compared to the prior year due to the discontinuation of lower end trims in 2019. The increases were partially offset by a decrease of 30,487 Model S and Model X cash deliveries and a decrease in average Model 3 costs per unit compared to the prior year primarily due to lower end trims introduced in 2019 and temporary under-utilization of manufacturing capacity at lower production volumes in the first half of 2018. Additionally, due to price adjustments we made to our vehicle offerings in 2019, we estimated that there is a greater likelihood that customers will exercise their buyback options that were provided prior to such adjustments. If customers elect to exercise the buyback options, we expect to be able to subsequently resell the returned vehicles, which resulted in a reduction of automotive cost of sales of \$451 million for the year ended December 31, 2019. Refer to Note 2, *Summary of Significant Accounting Policies*, to the consolidated statements included elsewhere in this Annual Report on Form 10-K.

Cost of automotive leasing revenue decreased \$29 million, or 6%, in the year ended December 31, 2019 compared to the year ended December 31, 2018. The decrease was primarily due to a decrease in cumulative vehicles under our resale value guarantee leasing programs which are accounted for as operating leases. The decrease was partially offset by an increase in cumulative vehicles under our direct vehicle leasing program, partially due to the introduction of Model 3 leasing in the second quarter of 2019.

Cost of services and other revenue increased \$890 million, or 47%, in the year ended December 31, 2019 as compared to the year ended December 31, 2018. The increase was primarily due to the costs of used vehicle sales from the increased volumes of trade-in vehicles. Additionally, there were increases in the costs of our new service centers, additional service personnel in existing and new service centers, Mobile Service capabilities, parts distribution centers and investment in new body shops to provide maintenance services to our rapidly growing fleet of vehicles.

Gross margin for total automotive decreased from 23% to 21% in the year ended December 31, 2019 as compared to the year ended December 31, 2018, primarily due to lower Model S and Model X margins from lower selling prices due to price adjustments we made to our vehicle offerings in 2019, a higher proportion of Model 3 as a percentage of our total automotive sales compared to the prior period. Additionally, the price adjustments also resulted in a reduction in gross automotive sales profit of \$104 million from the adjustment of our sales return reserve on vehicles previously sold under our buyback options program. The decrease was partially offset by improvement of Model 3 margins compared to the prior year as we achieved additional manufacturing efficiencies in the production of Model 3 and an increase of \$175 million in sales of regulatory credits.

Gross margin for total automotive & services and other segment decreased from 19% to 17% in the year ended December 31, 2019 as compared to the year ended December 31, 2018, primarily due to the automotive gross margin impacts discussed above and a higher proportion of services and other within the segment, which operates at lower gross margins than our automotive business.

Energy Generation and Storage Segment

Cost of energy generation and storage revenue includes direct and indirect material and labor costs, warehouse rent, freight, warranty expense, other overhead costs and amortization of certain acquired intangible assets. In addition, where arrangements are accounted for as operating leases, the cost of revenue is primarily comprised of depreciation of the cost of leased solar energy systems, maintenance costs associated with those systems and amortization of any initial direct costs.

2019 Compared to 2018

Cost of energy generation and storage revenue decreased by \$24 million, or 2%, in the year ended December 31, 2019 as compared to the year ended December 31, 2018. The decrease was primarily due to a decrease in deployments of solar cash and loan jobs, partially offset by increases in deployments of Powerwall, Powerpack, and Megapack.

Gross margin for energy generation and storage remained relatively consistent at 12% in the year ended December 31, 2019 as compared to the year ended December 31, 2018. Energy storage gross margins improved in the current year as a result of lower materials costs, partially offset by lower gross margins in our cash and loan solar business driven by higher costs from temporary manufacturing under-utilization of our Solar Roof ramp.

Research and Development Expense

(Dollars in millions)	Year Ended December 31,			2019 vs. 2018 Change		2018 vs. 2017 Change	
	2019	2018	2017	\$	%	\$	%
Research and development	\$ 1,343	\$ 1,460	\$ 1,378	\$ (117)	-8%	\$ 82	6%
As a percentage of revenues	5%	7%	12%				

Research and development (“R&D”) expenses consist primarily of personnel costs for our teams in engineering and research, manufacturing engineering and manufacturing test organizations, prototyping expense, contract and professional services and amortized equipment expense.

R&D expenses as a percentage of revenue decreased from 7% to 5% in the year ended December 31, 2019 as compared to the year ended December 31, 2018. The decrease was primarily from an increase in overall revenues from our expanding sales, as well as from our focus on increasing operational efficiency and process automation, our efforts to scale down and optimize our cost structure relative to the size of our business.

R&D expenses decreased \$117 million, or 8%, in the year ended December 31, 2019 compared to the year ended December 31, 2018. The decrease was primarily due to a \$95 million decrease in employee and labor related expenses from cost efficiency initiatives and a \$26 million decrease in professional and outside service expenses.

Selling, General and Administrative Expense

(Dollars in millions)	Year Ended December 31,			2019 vs. 2018 Change		2018 vs. 2017 Change	
	2019	2018	2017	\$	%	\$	%
Selling, general and administrative	\$ 2,646	\$ 2,835	\$ 2,477	\$ (189)	-7%	\$ 358	14%
As a percentage of revenues	11%	13%	21%				

Selling, general and administrative (“SG&A”) expenses generally consist of personnel and facilities costs related to our stores, marketing, sales, executive, finance, human resources, information technology and legal organizations, as well as fees for professional and contract services and litigation settlements.

SG&A expenses as a percentage of revenue decreased from 13% to 11% in year ended December 31, 2019 as compared to the year ended December 31, 2018. The decrease was primarily from an increase in overall revenues from our expanding sales, as well as from our focus on increasing operational efficiency and process automation, our efforts to scale down and optimize our cost structure relative to the size of our business.

SG&A expenses decreased \$189 million, or 7%, in the year ended December 31, 2019 as compared to the year ended December 31, 2018. The decrease was primarily due to a \$302 million decrease in employee and labor related expenses from decreased headcount and cost efficiency initiatives, partially offset by a \$112 million increase in stock-based compensation expense. The increase in stock-based compensation expense was primarily related to the 2018 CEO Performance Award as we recorded a \$72 million cumulative catch-up expense for the service provided from the grant date when an additional operational milestone was considered probable of being met in the fourth quarter of 2019. Additionally, the expense period was shorter in the prior year as it commenced upon the grant approval date of March 21, 2018.

Restructuring and other

(Dollars in millions)	Year Ended December 31,			2019 vs. 2018 Change		2018 vs. 2017 Change	
	2019	2018	2017	\$	%	\$	%
Restructuring and other	\$ 149	\$ 135	\$ —	\$ 14	10%	\$ 135	N/A
As a percentage of revenues	1 %	1 %	0 %				

During the year ended December 31, 2019, we carried out certain restructuring actions in order to reduce costs and improve efficiency. As a result, we recognized \$50 million of costs primarily related to employee termination expenses and losses from closing certain stores impacting both segments. We recognized \$47 million in impairment related to the IPR&D intangible asset as we abandoned further development efforts (refer to Note 4, *Goodwill and Intangible Assets* for details) and \$15 million for the related equipment within the energy generation and storage segment. We also incurred a loss of \$7 million for closing operations in certain facilities. On the statement of cash flows, the amounts were presented in the captions in which such amounts would have been recorded absent the impairment charges. The employee termination expenses were substantially paid by December 31, 2019, while the remaining amounts were non-cash.

During the year ended December 31, 2018, we carried-out certain restructuring actions in order to reduce costs and improve efficiency and recognized \$37 million of employee termination expenses and estimated losses from sub-leasing a certain facility. The employee termination cash expenses of \$27 million were substantially paid by the end of 2018, while the remaining amounts were non-cash. Also included within restructuring and other activities was \$55 million of expenses (materially all of which were non-cash) from restructuring the energy generation and storage segment, which comprised of disposals of certain tangible assets, the shortening of the useful life of a trade name intangible asset and a contract termination penalty. In addition, we concluded that a small portion of the IPR&D asset is not commercially feasible. Consequently, we recognized an impairment loss of \$13 million. We recognized settlement and legal expenses of \$30 million in the year ended December 31, 2018 for the settlement with the SEC relating to a take-private proposal for Tesla. These expenses were substantially paid by the end of 2018.

Interest Expense

(Dollars in millions)	Year Ended December 31,			2019 vs. 2018 Change		2018 vs. 2017 Change	
	2019	2018	2017	\$	%	\$	%
Interest expense	\$ 685	\$ 663	\$ 471	\$ 22	3 %	\$ 192	41 %
As a percentage of revenues	3 %	3 %	4 %				

Interest expense increased by \$22 million, or 3%, in the year ended December 31, 2019 as compared to the year ended December 31, 2018. The increase was primarily due to an increase in our average outstanding indebtedness at relatively consistent weighted average interest rates as compared to the year ended December 31, 2018.

Other Income (Expense), Net

(Dollars in millions)	Year Ended December 31,			2019 vs. 2018 Change		2018 vs. 2017 Change	
	2019	2018	2017	\$	%	\$	%
Other income (expense), net	\$ 45	\$ 22	\$ (125)	\$ 23	105%	\$ 147	Not meaningful
As a percentage of revenues	0 %	0 %	-1 %				

Other income (expense), net, consists primarily of foreign exchange gains and losses related to our foreign currency-denominated monetary assets and liabilities and changes in the fair values of our fixed-for-floating interest rate swaps. We expect our foreign exchange gains and losses will vary depending upon movements in the underlying exchange rates.

Other income (expense), net, increased by \$23 million, or 105%, in the year ended December 31, 2019 as compared to the year ended December 31, 2018. The change was primarily due to favorable fluctuations in foreign currency exchange rates, offset by losses from interest rate swaps related to our debt facilities year-over-year.

Provision for Income Taxes

(Dollars in millions)	Year Ended December 31,			2019 vs. 2018 Change		2018 vs. 2017 Change	
	2019	2018	2017	\$	%	\$	%
Provision for income taxes	\$ 110	\$ 58	\$ 32	\$ 52	90%	\$ 26	81%
Effective tax rate	-17%	-6%	-1%				

Our provision for income taxes increased by \$52 million, or 90%, in the year ended December 31, 2019 as compared to the year ended December 31, 2018, primarily due to the increase in taxable profits in certain foreign jurisdictions year-over-year.

Net Income (Loss) Attributable to Noncontrolling Interests and Redeemable Noncontrolling Interests

(Dollars in millions)	Year Ended December 31,			2019 vs. 2018 Change		2018 vs. 2017 Change	
	2019	2018	2017	\$	%	\$	%
Net income (loss) attributable to noncontrolling interests and redeemable noncontrolling interests in subsidiaries	\$ 87	\$ (87)	\$ (279)	\$ 174	Not meaningful	\$ 192	-69%

Our net income (loss) attributable to noncontrolling interests and redeemable noncontrolling interests was related to financing fund arrangements.

Net income (loss) attributable to noncontrolling interests and redeemable noncontrolling interests changed unfavorably by \$174 million in the year ended December 31, 2019 as compared to the year ended December 31, 2018. The change was primarily due to lower activities in our financing fund arrangements.

Liquidity and Capital Resources

As of December 31, 2019, we had \$6.27 billion of cash and cash equivalents. Balances held in foreign currencies had a U.S. dollar equivalent of \$1.26 billion and consisted primarily of Chinese yuan, euros and Canadian dollars. Our sources of cash are predominantly from our deliveries of vehicles, sales and installations of our energy storage products and solar energy systems, proceeds from debt facilities, proceeds from financing funds and proceeds from equity offerings.

Our sources of liquidity and cash flows enable us to fund ongoing operations, research and development projects for new products, establishment and/or increases of Model 3 and Model Y production capacity at the Fremont Factory and at Gigafactory Shanghai, the continued expansion of Gigafactory Nevada, the construction of Gigafactory Berlin, the manufacturing ramp of the Solar Roof at Gigafactory New York, and the continued expansion of our retail and service locations, body shops, Mobile Service fleet and Supercharger network.

As discussed in and subject to the considerations referenced in Part II, Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations—Management Opportunities, Challenges and Risks and 2020 Outlook—Trends in Cash Flow, Capital Expenditures and Operating Expenses* in this Annual Report on Form 10-K, considering the expected pace of the manufacturing ramps for our products, construction and expansion of our factories, and pipeline of projects under development, and consistent with our current strategy of using a partner to manufacture battery cells, as well as considering all other infrastructure growth, we currently expect our average annual capital expenditures in 2020 and the two succeeding fiscal years to be \$2.5 billion to \$3.5 billion.

We expect that the cash we generate from our core operations will generally be sufficient to cover our future capital expenditures and to pay down our near-term debt obligations, although we may choose to seek alternative financing sources. For example, we expect that much of our investment in Gigafactory Shanghai will continue to be funded through indebtedness arranged through local financial institutions in China, such as the RMB 9.0 billion (or the equivalent amount in U.S. dollars) fixed asset term facility and RMB 2.25 billion (or the equivalent amount in U.S. dollars) working capital revolving facility that our local subsidiary entered into in December 2019, and we expect the same with respect to Gigafactory Berlin. As always, we continually evaluate our capital expenditure needs and may decide it is best to raise additional capital to fund the rapid growth of our business, to further strengthen our balance sheet, or for general corporate purposes.

We have an agreement to spend or incur \$5.0 billion in combined capital, operational expenses, costs of goods sold and other costs in the State of New York during the 10-year period following full production at Gigafactory New York. We anticipate meeting these obligations through our operations at this facility and other operations within the State of New York, and we do not believe that we face a significant risk of default.

We expect that our current sources of liquidity together with our projection of cash flows from operating activities will provide us with adequate liquidity over at least the next 12 months. A large portion of our future expenditures is to fund our growth, and we can adjust our capital and operating expenditures by operating segment, including future expansion of our product offerings, retail and service locations, body shops, Mobile Service fleet, and Supercharger network. We may need or want to raise additional funds in the future, and these funds may not be available to us when we need or want them, or at all. If we cannot raise additional funds when we need or want them, our operations and prospects could be negatively affected.

In addition, we had \$3.03 billion of unused committed amounts under our credit facilities and financing funds as of December 31, 2019, some of which are subject to satisfying specified conditions prior to draw-down (such as pledging to our lenders sufficient amounts of qualified receivables, inventories, leased vehicles and our interests in those leases, solar energy systems and the associated customer contracts, our interests in financing funds or various other assets; and contributing or selling qualified solar energy systems and the associated customer contracts or qualified leased vehicles and our interests in those leases into the financing funds). Upon the draw-down of any unused committed amounts, there are no restrictions on use of available funds for general corporate purposes. For details regarding our indebtedness and financing funds, refer to Note 12, *Debt*, and Note 17, *Variable Interest Entity Arrangements*, to the consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

Summary of Cash Flows

(Dollars in millions)	Year Ended December 31,		
	2019	2018	2017
Net cash provided by (used in) operating activities	\$ 2,405	\$ 2,098	\$ (61)
Net cash used in investing activities	\$ (1,436)	\$ (2,337)	\$ (4,196)
Net cash provided by financing activities	\$ 1,529	\$ 574	\$ 4,415

Cash Flows from Operating Activities

Our cash flows from operating activities are significantly affected by our cash investments to support the growth of our business in areas such as research and development and selling, general and administrative and working capital, especially inventory, which includes vehicles in transit. Our operating cash inflows include cash from vehicle sales, customer lease payments, customer deposits, cash from sales of regulatory credits and energy generation and storage products. These cash inflows are offset by our payments to suppliers for production materials and parts used in our manufacturing process, operating expenses, operating lease payments and interest payments on our financings.

Net cash provided by operating activities increased by \$307 million to \$2.41 billion during the year ended December 31, 2019 from \$2.10 billion during the year ended December 31, 2018. This favorable change was primarily due to the increase in net income, excluding non-cash expenses and gains, of \$902 million, partially offset by the increase in net operating assets and liabilities of \$407 million and \$188 million of the repayment of our 0.25% Convertible Senior Notes due in 2019 which was classified as an operating activity, as this represented an interest payment on the discounted convertible notes. The increase in net operating assets and liabilities was mainly driven by a smaller increase in accounts payable and accrued liabilities in 2019 as compared to 2018, as we were ramping for Model 3 production in 2018 and a larger increase in operating lease vehicles in 2019 as compared to 2018 as we began offering Model 3 leasing in 2019. The increase in net operating assets and liabilities was partially offset by a smaller increase in inventory and a larger increase in deferred revenue in 2019 as compared to 2018.

Cash Flows from Investing Activities

Cash flows from investing activities and their variability across each period related primarily to capital expenditures, which were \$1.33 billion during 2019, mainly for Gigafactory Shanghai construction, Model 3 production, and Model Y preparations, and \$2.10 billion during 2018, mainly for Model 3 production. Design, acquisition and installation of solar energy systems amounted to \$105 million and \$218 million for the years ended December 31, 2019 and 2018, respectively.

Cash Flows from Financing Activities

Cash flows from financing activities during the year ended December 31, 2019 consisted primarily of \$1.82 billion from the issuance of the 2.00% Convertible Senior Notes due in 2024 (“2024 Notes”), net of transaction costs, and \$848 million from the issuance of common stock, net of underwriting discounts, in registered public offerings, \$736 million of net borrowings under loan agreements entered into by certain Chinese subsidiaries, \$394 million of net borrowings for automotive asset-backed notes, and \$174 million from the issuance of warrants in connection with the offering of the 2024 Notes. These cash inflows were partially offset by a \$732 million portion of the repayment of our 0.25% Convertible Senior Notes due in 2019 that was classified as financing activity, a \$566 million repayment of our 1.625% Convertible Senior Notes due in 2019, a purchase of convertible note hedges of \$476 million in connection with the offering of the 2024 Notes, and collateralized lease repayments of \$389 million. See Note 12, *Debt*, and Note 2, *Summary of Significant Accounting Policies*, to the consolidated financial statements included elsewhere in this Annual Report on Form 10-K for further details regarding our debt obligations and collateralized borrowings, respectively.

Cash flows from financing activities during the year ended December 31, 2018 consisted primarily of \$1.18 billion of net borrowings under automobile asset-backed notes, \$431 million of net borrowings under the senior secured asset-based revolving credit agreement (the “Credit Agreement”), \$334 million from the issuance of solar asset-backed notes and \$296 million of proceeds from exercises of stock options and other stock issuances. These cash inflows were partially offset by net repayments of \$582 million under our vehicle lease-backed loan and security agreements (the “Warehouse Agreements”), collateralized lease repayments of \$559 million, repayments of \$230 million of the 2.75% Convertible Senior Notes due on November 1, 2018, and repayments of \$210 million under the revolving aggregation credit facility.

Contractual Obligations

We are party to contractual obligations involving commitments to make payments to third parties, including certain debt financing arrangements and leases, primarily for stores, service centers, certain manufacturing and corporate offices. These also include, as part of our normal business practices, contracts with suppliers for purchases of certain raw materials, components and services to facilitate adequate supply of these materials and services and capacity reservation contracts. The following table sets forth, as of December 31, 2019, certain significant obligations that will affect our future liquidity (in millions):

	Total	Year Ended December 31,					Thereafter
		2020	2021	2022	2023	2024	
Operating lease obligations, including imputed interest	\$ 1,459	\$ 296	\$ 262	\$ 210	\$ 173	\$ 146	\$ 372
Finance lease obligations, including imputed interest	1,795	474	478	600	225	5	13
Purchase obligations (1)	16,292	5,729	2,946	3,645	3,948	24	—
Debt, including scheduled interest (2)	14,031	1,774	2,594	2,287	1,993	2,575	2,808
Total	\$ 33,577	\$ 8,273	\$ 6,280	\$ 6,742	\$ 6,339	\$ 2,750	\$ 3,193

- (1) These amounts represent (i) purchase orders of \$2.50 billion issued under binding and enforceable agreements with all vendors as of December 31, 2019 and (ii) \$13.79 billion in other estimable purchase obligations pursuant to such agreements, primarily relating to the purchase of lithium-ion cells produced by Panasonic at Gigafactory Nevada, including any additional amounts we may have to pay vendors if we do not meet certain minimum purchase obligations. In cases where no purchase orders were outstanding under binding and enforceable agreements as of December 31, 2019, we have included estimated amounts based on our best estimates and assumptions or discussions with the relevant vendors as of such date or, where applicable, on amounts or assumptions included in such agreements for purposes of discussion or reference. In certain cases, such estimated amounts were subject to contingent events. Furthermore, these amounts do not include future payments for purchase obligations that were recorded in accounts payable or accrued liabilities as of December 31, 2019.
- (2) Debt, including scheduled interest, includes our non-recourse indebtedness of \$5.29 billion. Non-recourse debt refers to debt that is recourse to only assets of our subsidiaries. Short-term scheduled interest payments and amortization of convertible senior note conversion features, debt discounts and deferred financing costs for the year ended December 31, 2020 is \$375 million. Long-term scheduled interest payments and amortization of convertible senior note conversion features, debt discounts and deferred financing costs for the years thereafter is \$1.86 billion.

The table above excludes unrecognized tax benefits of \$247 million because if recognized, they would be an adjustment to our deferred tax assets.

We offer resale value guarantees or similar buyback terms to certain customers who purchase and finance their vehicles through one of our specified commercial banking partners and certain leasing partners (refer to *Automotive Sales with Resale Value Guarantee or a Buyback Option* in Note 2, *Significant Accounting Policies*, to the consolidated financial statements included elsewhere in this Annual Report on Form 10-K). The maximum amount we could be required to pay under these programs, should customers exercise their resale value guarantees or buyback options, would be \$1.70 billion over the next five years, of which \$226 million is within a 12-month period from December 31, 2019. We have not included this in the table above as it is unknown how many customers will exercise their options. Additionally, we plan to resell any vehicles which are returned to us and therefore, the actual exposure to us is deemed to be limited.

Off-Balance Sheet Arrangements

During the periods presented, we did not have relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which were established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Recent Accounting Pronouncements

See Note 2, *Summary of Significant Accounting Policies*, to the consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**Foreign Currency Risk**

We transact business globally in multiple currencies and hence have foreign currency risks related to our revenue, costs of revenue and operating expenses denominated in currencies other than the U.S. dollar (primarily the euro, Japanese yen, Canadian dollar, Chinese yuan and Norwegian krone). In general, we are a net receiver of currencies other than the U.S. dollar for our foreign subsidiaries. Accordingly, changes in exchange rates and, in particular, a strengthening of the U.S. dollar have in the past, and may in the future, negatively affect our revenue and other operating results as expressed in U.S. dollars as we do not typically hedge foreign currency.

We have also experienced, and will continue to experience, fluctuations in our net income (loss) as a result of gains (losses) on the settlement and the re-measurement of monetary assets and liabilities denominated in currencies that are not the local currency (primarily consisting of our intercompany and cash and cash equivalents balances). For the year ended December 31, 2019, we recognized a net foreign currency gain of \$48 million in other (expense) income, net, with our largest re-measurement exposures from the U.S. dollar, British pound and Canadian dollar as our subsidiaries are denominated in various local currencies. For the year ended December 31, 2018, we recognized a net foreign currency gain of \$2 million in other (expense) income, net, with our largest re-measurement exposures from the euro, New Taiwan dollar and Canadian dollar.

We considered the historical trends in foreign currency exchange rates and determined that it is reasonably possible that adverse changes in foreign currency exchange rates of 10% for all currencies could be experienced in the near-term. These changes were applied to our total monetary assets and liabilities denominated in currencies other than our local currencies at the balance sheet date to compute the impact these changes would have had on our net income (loss) before income taxes. These changes would have resulted in an adverse impact of \$362 million at December 31, 2019 and \$176 million at December 31, 2018 assuming no foreign currency hedging.

Interest Rate Risk

We are exposed to interest rate risk on our borrowings that bear interest at floating rates. Pursuant to our risk management policies, in certain cases, we utilize derivative instruments to manage some of this risk. We do not enter into derivative instruments for trading or speculative purposes. A hypothetical 10% change in our interest rates would have increased or decreased our interest expense for the years ended December 31, 2019 and 2018 by \$8 million and \$9 million, respectively.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Tesla, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Tesla, Inc. and its subsidiaries (the “Company”) as of December 31, 2019 and 2018, and the related consolidated statements of operations, of comprehensive loss, of redeemable noncontrolling interests and equity and of cash flows for each of the three years in the period ended December 31, 2019, including the related notes (collectively referred to as the “consolidated financial statements”). We also have audited the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in ~~Internal Control—Integrated Framework~~ (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in ~~Internal Control—Integrated Framework~~ (2013) issued by the COSO.

Changes in Accounting Principles

As discussed in Note 2 to the consolidated financial statements, the Company changed the manner in which it accounts for leases in 2019 and the manner in which it accounts for revenue from contracts with customers in 2018.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Automotive Sales To Customers With a Resale Value Guarantee or Buyback Option

As described in Note 2 to the consolidated financial statements, the sales return reserve related to resale value guarantees or buyback options was \$639 million as of December 31, 2019, of which \$93 million was short-term. The Company offers some customers resale value guarantees or buyback options. Under these programs, the Company receives full payment for the vehicle sales price at the time of delivery and the customer has the option of selling their vehicle back to the Company during the guarantee period for a pre-determined resale value. In circumstances where management does not believe the customer has a significant economic incentive to exercise the resale value guarantee or buyback option provided to them, the Company recognizes revenue when control transfers upon delivery to a customer as a sale with a right of return. In circumstances where management believes the customer has a significant economic incentive to exercise the resale value guarantee or buyback option, the Company recognizes the transaction as an operating lease. Management's determination of whether there is a significant economic incentive includes comparing and considering a vehicle's estimated market value at the time the option is exercisable with the guaranteed resale value. Sales return reserves are estimated based on historical experience plus estimates of expected future market values. On a quarterly basis, management reassesses the estimated future market values of vehicles under these programs, taking into account price adjustments on new vehicles and other changes in market value subsequent to the initial sale to determine the need for changes to the reserve.

The principal considerations for our determination that performing procedures relating to automotive sales to customers with a resale value guarantee or buyback option is a critical audit matter are there was significant judgment by management in determining the sales return reserve when customers do not have a significant economic incentive to exercise their option. This in turn led to high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating evidence in the sales return reserve when customers do not have a significant economic incentive.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to automotive revenue recognition for sales to customers with a resale value guarantee or buyback option as well as the related sales return reserve, including controls over management's estimate of expected future market values and historical experience. These procedures also included, among others, testing management's process for determining whether customers have a significant economic incentive to exercise their put rights under the resale value guarantee and buyback option programs and, if not, the related sales return reserve. This included evaluating the appropriateness of the model applied and the reasonableness of significant assumptions, including historical experience and the estimated expected future market values used in the comparison to guaranteed resale amounts. Evaluating assumptions related to historical experience and estimated expected future market values involved evaluating whether the assumptions used were reasonable considering current and past performance and consistency with evidence obtained in other areas of the audit. Procedures were performed to evaluate the reliability, completeness and relevance of management's data used in the development of the historical experience assumption.

Automotive Warranty Reserve

As described in Note 2 to the consolidated financial statements, total accrued warranty, which primarily relates to the automotive segment, was \$1,089 million as of December 31, 2019. The Company provides a manufacturer's warranty on all new and used Tesla vehicles. As described in Note 2, a warranty reserve is accrued for these products sold, which includes management's best estimate of the projected costs to repair or replace items under warranty, including recalls when identified. These estimates are based on actual claims incurred to date and an estimate of the nature, frequency and costs of future claims.

The principal considerations for our determination that performing procedures relating to the automotive warranty reserve is a critical audit matter are there was significant judgment by management in determining the warranty reserve. This in turn led to significant auditor judgment, subjectivity, and effort in performing procedures to evaluate the estimate of the nature, frequency and costs of future claims, and the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's estimate of the automotive warranty reserve, including controls over management's estimate of the nature, frequency and costs of future claims as well as the completeness and accuracy of actual claims incurred to date. These procedures also included, among others, testing management's process for determining the automotive warranty reserve. This included evaluating the appropriateness of the model applied and the reasonableness of significant assumptions, including the nature and frequency of future claims and the related costs to repair or replace items under warranty. Evaluating the assumptions related to the nature and frequency of future claims and the related costs to repair or replace items under warranty involved evaluating whether the assumptions used were reasonable considering current and past performance, including a lookback analysis comparing prior period forecasted claims to actual claims incurred. These procedures also included developing an independent estimate of a portion of the warranty accrual, comparing the independent estimate to management's estimate to evaluate the reasonableness of the estimate, and testing the completeness and accuracy of historical vehicle claims. Procedures were performed to test the reliability, completeness, and relevance of management's data related to the historical claims processed and that such claims were appropriately used by management in the estimation of future claims. Professionals with specialized skill and knowledge were used to assist in evaluating the appropriateness of aspects of management's model for estimating the nature and frequency of future claims, and testing management's warranty reserve for a portion of future warranty claims.

/s/PricewaterhouseCoopers LLP

San Jose, California
February 13, 2020

We have served as the Company's auditor since 2005.

Tesla, Inc.
Consolidated Balance Sheets
(in millions, except per share data)

	December 31, 2019	December 31, 2018
Assets		
Current assets		
Cash and cash equivalents	\$ 6,268	\$ 3,686
Restricted cash	246	193
Accounts receivable, net	1,324	949
Inventory	3,552	3,113
Prepaid expenses and other current assets	713	366
Total current assets	12,103	8,307
Operating lease vehicles, net	2,447	2,090
Solar energy systems, net	6,138	6,271
Property, plant and equipment, net	10,396	11,330
Operating lease right-of-use assets	1,218	—
Intangible assets, net	339	282
Goodwill	198	68
MyPower customer notes receivable, net of current portion	393	422
Restricted cash, net of current portion	269	398
Other assets	808	572
Total assets	\$ 34,309	\$ 29,740
Liabilities		
Current liabilities		
Accounts payable	\$ 3,771	\$ 3,405
Accrued liabilities and other	2,905	2,094
Deferred revenue	1,163	630
Resale value guarantees	317	503
Customer deposits	726	793
Current portion of debt and finance leases	1,785	2,568
Total current liabilities	10,667	9,993
Debt and finance leases, net of current portion	11,634	9,404
Deferred revenue, net of current portion	1,207	991
Resale value guarantees, net of current portion	36	329
Other long-term liabilities	2,655	2,710
Total liabilities	26,199	23,427
Commitments and contingencies (Note 16)		
Redeemable noncontrolling interests in subsidiaries	643	556
Equity		
Stockholders' equity		
Preferred stock; \$0.001 par value; 100 shares authorized; no shares issued and outstanding	—	—
Common stock; \$0.001 par value; 2,000 shares authorized; 181 and 173 shares issued and outstanding as of December 31, 2019 and 2018, respectively	0	0
Additional paid-in capital	12,737	10,249
Accumulated other comprehensive loss	(36)	(8)
Accumulated deficit	(6,083)	(5,318)
Total stockholders' equity	6,618	4,923
Noncontrolling interests in subsidiaries	849	834
Total liabilities and equity	\$ 34,309	\$ 29,740

The accompanying notes are an integral part of these consolidated financial statements.

Tesla, Inc.

Consolidated Statements of Operations
(in millions, except per share data)

	Year Ended December 31,		
	2019	2018	2017
Revenues			
Automotive sales	\$ 19,952	\$ 17,632	\$ 8,535
Automotive leasing	869	883	1,107
Total automotive revenues	20,821	18,515	9,642
Energy generation and storage	1,531	1,555	1,116
Services and other	2,226	1,391	1,001
Total revenues	24,578	21,461	11,759
Cost of revenues			
Automotive sales	15,939	13,686	6,725
Automotive leasing	459	488	708
Total automotive cost of revenues	16,398	14,174	7,433
Energy generation and storage	1,341	1,365	874
Services and other	2,770	1,880	1,229
Total cost of revenues	20,509	17,419	9,536
Gross profit	4,069	4,042	2,223
Operating expenses			
Research and development	1,343	1,460	1,378
Selling, general and administrative	2,646	2,835	2,477
Restructuring and other	149	135	—
Total operating expenses	4,138	4,430	3,855
Loss from operations	(69)	(388)	(1,632)
Interest income	44	24	19
Interest expense	(685)	(663)	(471)
Other income (expense), net	45	22	(125)
Loss before income taxes	(665)	(1,005)	(2,209)
Provision for income taxes	110	58	32
Net loss	(775)	(1,063)	(2,241)
Net income (loss) attributable to noncontrolling interests and redeemable noncontrolling interests in subsidiaries	87	(87)	(279)
Net loss attributable to common stockholders	<u>\$ (862)</u>	<u>\$ (976)</u>	<u>\$ (1,962)</u>
Net loss per share of common stock attributable to common stockholders			
Basic	(4.92)	\$ (5.72)	\$ (11.83)
Diluted	(4.92)	\$ (5.72)	\$ (11.83)
Weighted average shares used in computing net loss per share of common stock			
Basic	177	171	166
Diluted	177	171	166

The accompanying notes are an integral part of these consolidated financial statements.

Tesla, Inc.
Consolidated Statements of Comprehensive Loss
(in millions)

	Year Ended December 31,		
	2019	2018	2017
Net loss	\$ (775)	\$ (1,063)	\$ (2,241)
Other comprehensive loss:			
Reclassification adjustment for net gains on derivatives into net loss	—	—	(6)
Foreign currency translation adjustment	(28)	(42)	63
Comprehensive loss	(803)	(1,105)	(2,184)
Less: Comprehensive income (loss) attributable to noncontrolling interests and redeemable noncontrolling interests in subsidiaries	87	(87)	(279)
Comprehensive loss attributable to common stockholders	<u>\$ (890)</u>	<u>\$ (1,018)</u>	<u>\$ (1,905)</u>

The accompanying notes are an integral part of these consolidated financial statements.

Tesla, Inc.

Consolidated Statements of Redeemable Noncontrolling Interests and Equity
(in millions, except per share data)

	Redeemable Noncontrolling Interests	Common Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity	Noncontrolling Interests in Subsidiaries	Total Equity
		Shares	Amount						
Balance as of December 31, 2016	\$ 367	162	\$ 0	\$ 7,774	\$ (2,997)	\$ (24)	\$ 4,753	\$ 785	\$ 5,538
Adjustment of prior periods due to adoption of Accounting Standards Update No. 2016-09	—	—	—	15	(15)	—	—	—	—
Conversion feature of Convertible Senior Notes due in 2022	—	—	—	146	—	—	146	—	146
Purchases of convertible note hedges	—	—	—	(204)	—	—	(204)	—	(204)
Sales of warrants	—	—	—	53	—	—	53	—	53
Exercises of conversion feature of convertible senior notes	—	1	0	230	—	—	230	—	230
Issuance of common stock for equity incentive awards and acquisitions, net of transaction costs	—	4	0	269	—	—	269	—	269
Issuance of common stock in March 2017 public offering at \$62.00 per share, net of issuance costs of \$3	—	2	0	400	—	—	400	—	400
Stock-based compensation	—	—	—	485	—	—	485	—	485
Contributions from noncontrolling interests	193	—	—	—	—	—	—	597	597
Distributions to noncontrolling interests	(101)	—	—	—	—	—	—	(164)	(164)
Other	(3)	—	—	10	—	—	10	—	10
Net loss	(58)	—	—	—	(1,962)	—	(1,962)	(221)	(2,183)
Other comprehensive income	—	—	—	—	—	57	57	—	57
Balance as of December 31, 2017	\$ 398	169	\$ 0	\$ 9,178	\$ (4,974)	\$ 33	\$ 4,237	\$ 997	\$ 5,234
Adjustments for prior periods from adopting ASC 606	8	—	—	—	623	—	623	(89)	534
Adjustments for prior periods from adopting Accounting Standards Update No. 2017-05	—	—	—	—	9	—	9	—	9
Issuance of common stock for equity incentive awards	—	4	0	296	—	—	296	—	296
Stock-based compensation	—	—	—	775	—	—	775	—	775
Contributions from noncontrolling interests	276	—	—	—	—	—	—	161	161
Distributions to noncontrolling interests	(61)	—	—	—	—	—	—	(210)	(210)
Other	(3)	—	—	—	—	—	—	—	—
Net loss	(62)	—	—	—	(976)	—	(976)	(25)	(1,001)
Other comprehensive loss	—	—	—	—	—	(41)	(41)	—	(41)
Balance as of December 31, 2018	\$ 556	173	\$ 0	\$ 10,249	\$ (5,318)	\$ (8)	\$ 4,923	\$ 834	\$ 5,757
Adjustments for prior periods from adopting ASC 842	—	—	—	—	97	—	97	—	97
Conversion feature of Convertible Senior Notes due in 2024	—	—	—	491	—	—	491	—	491
Purchase of convertible note hedges	—	—	—	(476)	—	—	(476)	—	(476)
Sales of warrants	—	—	—	174	—	—	174	—	174
Issuance of common stock for equity incentive awards and acquisitions, net of transaction costs	—	5	0	482	—	—	482	—	482
Issuance of common stock in May 2019 public offering at \$43.00 per share, net of issuance costs of \$15	—	3	0	848	—	—	848	—	848
Stock-based compensation	—	—	—	973	—	—	973	—	973
Contributions from noncontrolling interests	105	—	—	—	—	—	—	174	174
Distributions to noncontrolling interests	(65)	—	—	—	—	—	—	(198)	(198)
Other	(1)	—	—	(4)	—	—	(4)	—	(4)
Net income (loss)	48	—	—	—	(862)	—	(862)	39	(823)
Other comprehensive loss	—	—	—	—	—	(28)	(28)	—	(28)
Balance as of December 31, 2019	\$ 643	181	\$ 0	\$ 12,737	\$ (6,083)	\$ (36)	\$ 6,618	\$ 849	\$ 7,467

The accompanying notes are an integral part of these consolidated financial statements.

Tesla, Inc.
Consolidated Statements of Cash Flows
(in millions)

	Year Ended December 31,		
	2019	2018	2017
Cash Flows from Operating Activities			
Net loss	\$ (775)	\$ (1,063)	\$ (2,241)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Depreciation, amortization and impairment	2,154	1,901	1,636
Stock-based compensation	898	749	467
Amortization of debt discounts and issuance costs	188	159	91
Inventory and purchase commitments write-downs	193	85	132
Loss on disposals of fixed assets	146	162	106
Foreign currency transaction (gains) loss	(48)	(2)	52
Loss related to SolarCity acquisition	—	—	58
Non-cash interest and other operating activities	186	49	135
Operating cash flow related to repayment of discounted convertible notes	(188)	—	—
Changes in operating assets and liabilities, net of effect of business combinations:			
Accounts receivable	(367)	(497)	(25)
Inventory	(429)	(1,023)	(179)
Operating lease vehicles	(764)	(215)	(1,523)
Prepaid expenses and other current assets	(288)	(82)	(72)
Other non-current assets	115	(207)	(15)
Accounts payable and accrued liabilities	682	1,723	388
Deferred revenue	801	406	469
Customer deposits	(58)	(96)	170
Resale value guarantee	(150)	(111)	209
Other long-term liabilities	109	160	81
Net cash provided by (used in) operating activities	2,405	2,098	(61)
Cash Flows from Investing Activities			
Purchases of property and equipment excluding finance leases, net of sales	(1,327)	(2,101)	(3,415)
Purchases of solar energy systems	(105)	(218)	(666)
Purchase of intangible assets	(5)	—	—
Receipt of government grants	46	—	—
Business combinations, net of cash acquired	(45)	(18)	(115)
Net cash used in investing activities	(1,436)	(2,337)	(4,196)
Cash Flows from Financing Activities			
Proceeds from issuances of common stock in public offerings, net of underwriting discounts	848	—	400
Proceeds from issuances of convertible and other debt	10,669	6,176	7,138
Repayments of convertible and other debt	(9,161)	(5,247)	(3,996)
Repayments of borrowings issued to related parties	—	(100)	(165)
Collateralized lease repayments	(389)	(559)	511
Proceeds from exercises of stock options and other stock issuances	263	296	259
Principal payments on finance leases	(321)	(181)	(103)
Common stock and debt issuance costs	(37)	(15)	(63)
Purchase of convertible note hedges	(476)	—	(204)
Proceeds from settlement of convertible note hedges	—	—	287
Proceeds from issuance of warrants	174	—	53
Payments for settlements of warrants	—	—	(230)
Proceeds from investments by noncontrolling interests in subsidiaries	279	437	790
Distributions paid to noncontrolling interests in subsidiaries	(311)	(227)	(262)
Payments for buy-outs of noncontrolling interests in subsidiaries	(9)	(6)	—
Net cash provided by financing activities	1,529	574	4,415
Effect of exchange rate changes on cash and cash equivalents and restricted cash	8	(23)	40
Net increase in cash and cash equivalents and restricted cash	2,506	312	198
Cash and cash equivalents and restricted cash, beginning of period	4,277	3,965	3,767
Cash and cash equivalents and restricted cash, end of period	\$ 6,783	\$ 4,277	\$ 3,965
Supplemental Non-Cash Investing and Financing Activities			
Equity issued in connection with business combination	\$ 207	\$ —	\$ —
Acquisitions of property and equipment included in liabilities	\$ 562	\$ 249	\$ 914
Estimated fair value of facilities under build-to-suit leases	\$ —	\$ 94	\$ 313
Supplemental Disclosures			
Cash paid during the period for interest, net of amounts capitalized	\$ 455	\$ 381	\$ 183
Cash paid during the period for taxes, net of refunds	\$ 54	\$ 35	\$ 66

The accompanying notes are an integral part of these consolidated financial statements.

Tesla, Inc.

Notes to Consolidated Financial Statements

Note 1 – Overview

Tesla, Inc. (“Tesla”, the “Company”, “we”, “us” or “our”) was incorporated in the State of Delaware on July 1, 2003. We design, develop, manufacture and sell high-performance fully electric vehicles and design, manufacture, install and sell solar energy generation and energy storage products. Our Chief Executive Officer, as the chief operating decision maker (“CODM”), organizes the Company, manages resource allocations and measures performance among two operating and reportable segments: (i) automotive and (ii) energy generation and storage.

Note 2 – Summary of Significant Accounting Policies*Principles of Consolidation*

The accompanying consolidated financial statements have been prepared in conformity with U.S. generally accepted accounting principles (“GAAP”) and reflect our accounts and operations and those of our subsidiaries in which we have a controlling financial interest. In accordance with the provisions of Accounting Standards Codification (“ASC”) 810, *Consolidation*, we consolidate any variable interest entity (“VIE”) of which we are the primary beneficiary. We form VIEs with financing fund investors in the ordinary course of business in order to facilitate the funding and monetization of certain attributes associated with solar energy systems and leases under our direct vehicle leasing programs. The typical condition for a controlling financial interest ownership is holding a majority of the voting interests of an entity; however, a controlling financial interest may also exist in entities, such as VIEs, through arrangements that do not involve controlling voting interests. ASC 810 requires a variable interest holder to consolidate a VIE if that party has the power to direct the activities of the VIE that most significantly impact the VIE’s economic performance and the obligation to absorb losses of the VIE that could potentially be significant to the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE. We do not consolidate a VIE in which we have a majority ownership interest when we are not considered the primary beneficiary. We have determined that we are the primary beneficiary of all the VIEs (see Note 17, *Variable Interest Entity Arrangements*). We evaluate our relationships with all the VIEs on an ongoing basis to ensure that we continue to be the primary beneficiary. All intercompany transactions and balances have been eliminated upon consolidation.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and disclosures in the accompanying notes. Estimates are used for, but not limited to, determining the transaction price of products and services in arrangements with multiple performance obligations and determining the amortization period of these obligations, significant economic incentive for residual value guarantee arrangements, sales return reserves, the collectability of accounts receivable, inventory valuation, fair value of long-lived assets, goodwill, fair value of financial instruments, residual value of operating lease vehicles, depreciable lives of property and equipment and solar energy systems, fair value and residual value of solar energy systems subject to leases, warranty liabilities, income taxes, contingencies, determining lease pass-through financing obligations, the valuation of build-to-suit lease assets, fair value of interest rate swaps and inputs used to value stock-based compensation. In addition, estimates and assumptions are used for the accounting for business combinations, including the fair values and useful lives of acquired assets, assumed liabilities and noncontrolling interests. Management bases its estimates on historical experience and on various other assumptions believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results could differ from those estimates.

*Revenue Recognition**Adoption of new accounting standards*

ASU 2014-09, *Revenue - Revenue from Contracts with Customers*. On January 1, 2018, we adopted the new accounting standard ASC 606, *Revenue from Contracts with Customers* and all the related amendments (“new revenue standard”) using the modified retrospective method. As a policy election, the new revenue standard was applied only to contracts that were not substantially completed as of the date of adoption. We recognized the cumulative effect of initially applying the new revenue standard as an adjustment to the January 1, 2018 opening balance of accumulated deficit. The prior period consolidated financial statements have not been retrospectively adjusted and continue to be reported under the accounting standards in effect for those periods.

A majority of our automotive sales revenue is recognized when control transfers upon delivery to customers. For certain vehicle sales where revenue was previously deferred as an in-substance operating lease, such as certain vehicle sales to customers or leasing partners with a resale value guarantee, we recognize revenue when the vehicles are delivered as a sale with a right of return. As a result, the corresponding operating lease asset, deferred revenue, and resale value guarantee balances as of December 31, 2017, were reclassified to accumulated deficit as part of our adoption entry. Furthermore, the warranty liability related to such vehicles has been accrued as a result of the change from in-substance operating leases to vehicle sales. Prepayments on contracts that can be cancelled without significant penalties, such as vehicle maintenance plans, have been reclassified from deferred revenue to customer deposits. Refer to the *Automotive Sales Revenue* and *Automotive Leasing Revenue* sections below for further discussion of the impact on various categories of vehicle sales.

*Automotive Segment**Automotive Sales Revenue**Automotive Sales without Resale Value Guarantee*

Automotive sales revenue includes revenues related to deliveries of new vehicles and pay-per-use charges, and specific other features and services that meet the definition of a performance obligation under the new revenue standard, including access to our Supercharger network, internet connectivity, Autopilot, Full Self-Driving (“FSD”) features and over-the-air software updates. We recognize revenue on automotive sales upon delivery to the customer, which is when the control of a vehicle transfers. Payments are typically received at the point control transfers or in accordance with payment terms customary to the business. Other features and services such as access to our Supercharger network, internet connectivity and over-the-air software updates are provisioned upon control transfer of a vehicle and recognized over time on a straight-line basis as we have a stand-ready obligation to deliver such services to the customer. We recognize revenue related to these other features and services over the performance period, which is generally the expected ownership life of the vehicle or the eight-year life of the vehicle. Revenue related to Autopilot and FSD features is recognized when functionality is delivered to the customer. For our obligations related to automotive sales, we estimate standalone selling price by considering costs used to develop and deliver the service, third-party pricing of similar options and other information that may be available.

At the time of revenue recognition, we reduce the transaction price and record a sales return reserve against revenue for estimated variable consideration related to future product returns. Such estimates are based on historical experience and are immaterial in all periods presented. In addition, any fees that are paid or payable by us to a customer’s lender when we arrange the financing are recognized as an offset against automotive sales revenue.

Costs to obtain a contract mainly relate to commissions paid to our sales personnel for the sale of vehicles. Commissions are not paid on other obligations such as access to our Supercharger network, internet connectivity, Autopilot, FSD features and over-the-air software updates. As our contract costs related to automotive sales are typically fulfilled within one year, the costs to obtain a contract are expensed as incurred. Amounts billed to customers related to shipping and handling are classified as automotive revenue, and we have elected to recognize the cost for freight and shipping when control over vehicles, parts, or accessories have transferred to the customer as an expense in cost of revenues. Our policy is to exclude taxes collected from a customer from the transaction price of automotive contracts.

Automotive Sales with Resale Value Guarantee or a Buyback Option

We offer resale value guarantees or similar buy-back terms to certain international customers who purchase vehicles and who finance their vehicles through one of our specified commercial banking partners. We also offer resale value guarantees in connection with automotive sales to certain leasing partners. Under these programs, we receive full payment for the vehicle sales price at the time of delivery and our counterparty has the option of selling their vehicle back to us during the guarantee period, which currently is generally at the end of the term of the applicable loan or financing program, for a pre-determined resale value.

With the exception of two programs which are discussed within the *Automotive Leasing* section, we recognize revenue when control transfers upon delivery to customers in accordance with the new revenue standard as a sale with a right of return as we do not believe the customer has a significant economic incentive to exercise the resale value guarantee provided to them. The process to determine whether there is a significant economic incentive includes a comparison of a vehicle's estimated market value at the time the option is exercisable with the guaranteed resale value to determine the customer's economic incentive to exercise. The performance obligations and the pattern of recognizing automotive sales with resale value guarantees are consistent with automotive sales without resale value guarantees with the exception of our estimate for sales return reserve. Sales return reserves for automotive sales with resale value guarantees are estimated based on historical experience plus consideration for expected future market values. On a quarterly basis, we assess the estimated market values of vehicles under our buyback options program to determine whether there have been changes to the likelihood of future product returns. As we accumulate more data related to the buyback values of our vehicles or as market conditions change, there may be material changes to their estimated values. Due to price adjustments we made to our vehicle offerings during 2019, we estimated that there is a greater likelihood that customers will exercise their buyback options that were provided prior to such adjustments. As a result, along with the estimated variable consideration related to normal future product returns for vehicles sold under the buyback options program, we adjusted our sales return reserve on vehicles previously sold under our buyback options program resulting in a reduction of automotive sales revenues of \$555 million for the year ended December 31, 2019. If customers elect to exercise the buyback option, we expect to be able to subsequently resell the returned vehicles, which resulted in a corresponding reduction in cost of automotive sales of \$451 million for the year ended December 31, 2019. The net impact was \$104 million reduction in gross profit for the year ended December 31, 2019. The total sales return reserve on vehicles previously sold under our buyback options program was \$639 million as of December 31, 2019, of which \$93 million was short term. The two programs that are still being recorded as operating leases are discussed in further detail below in *Vehicle Sales to Leasing Partners with a Resale Value Guarantee and a Buyback Option* and *Vehicle Sales to Customers with a Resale Value Guarantee where Exercise is Probable*.

Prior to the adoption of the new revenue standard, all transactions with resale value guarantees were recorded as operating leases. The amount of sale proceeds equal to the resale value guarantee was deferred until the guarantee expired or was exercised. For certain transactions that were considered interest bearing collateralized borrowings as required under ASC 840, *Leases* prior to January 1, 2019, we also accrued interest expense based on our borrowing rate. The remaining sale proceeds were deferred and recognized on a straight-line basis over the stated guarantee period to automotive leasing revenue. The guarantee period expired at the earlier of the end of the guarantee period or the pay-off of the initial loan. We capitalized the cost of these vehicles on the consolidated balance sheet as operating lease vehicles, net, and depreciated their value, less estimated residual value, to cost of automotive leasing revenue over the same period.

In cases where our counterparty retained ownership of the vehicle at the end of the guarantee period, the resale value guarantee liability and any remaining deferred revenue balances related to the vehicle were settled to automotive leasing revenue, and the net book value of the leased vehicle was expensed to cost of automotive leasing revenue. If our counterparty returned the vehicle to us during the guarantee period, we purchased the vehicle from our counterparty in an amount equal to the resale value guarantee and settled any remaining deferred balances to automotive leasing revenue, and we reclassified the net book value of the vehicle on the consolidated balance sheet to used vehicle inventory.

Deferred revenue activity related to the access to our Supercharger network, internet connectivity, Autopilot, FSD features and over-the-air software updates on automotive sales with and without resale value guarantee consisted of the following (in millions):

	Year ended December 31,	
	2019	2018
Deferred revenue on automotive sales with and without resale value guarantee— beginning of period	\$ 883	\$ 476
Additions	880	532
Net changes in liability for pre-existing contracts	9	(13)
Revenue recognized	(300)	(112)
Deferred revenue on automotive sales with and without resale value guarantee— end of period	\$ 1,472	\$ 883

Deferred revenue is equivalent to the total transaction price allocated to the performance obligations that are unsatisfied, or partially unsatisfied, as of December 31, 2019. From the deferred revenue balance as of December 31, 2018, revenue recognized during the year ended December 31, 2019 was \$220 million. From the deferred revenue balance as of January 1, 2018, revenue recognized during the year ended December 31, 2018 was \$1 million. Of the total deferred revenue on automotive sales with and without resale value guarantees as of December 31, 2019, we expect to recognize \$751 million of revenue in the next 12 months. The remaining balance will be recognized over the performance period as discussed above in *Automotive Sales without Resale Value Guarantee*.

Automotive Regulatory Credits

In connection with the production and delivery of our zero emission vehicles in global markets, we have earned and will continue to earn various tradable automotive regulatory credits. We have sold these credits, and will continue to sell future credits, to automotive companies and other regulated entities who can use the credits to comply with emission standards and other regulatory requirements. For example, under California's Zero Emission Vehicle Regulation and those of states that have adopted California's standard, vehicle manufacturers are required to earn or purchase credits, referred to as ZEV credits, for compliance with their annual regulatory requirements. These laws provide that automakers may bank or sell to other regulated parties their excess credits if they earn more credits than the minimum quantity required by those laws. We also earn other types of saleable regulatory credits in the United States and abroad, including greenhouse gas, fuel economy and clean fuels credits. Payments for regulatory credits are typically received at the point control transfers to the customer, or in accordance with payment terms customary to the business.

We recognize revenue on the sale of automotive regulatory credits at the time control of the regulatory credits is transferred to the purchasing party as automotive revenue in the consolidated statements of operations. Revenue from the sale of automotive regulatory credits totaled \$594 million, \$419 million and \$360 million for the years ended December 31, 2019, 2018 and 2017, respectively. Deferred revenue related to sales of automotive regulatory credits was \$140 million and \$0 as of December 31, 2019 and 2018, respectively. We expect to recognize the deferred revenue as of December 31, 2019 in the next 12 months.

Automotive Leasing Revenue

Automotive leasing revenue includes revenue recognized under lease accounting guidance for our direct leasing programs as well as the two programs with resale value guarantees which continue to qualify for operating lease treatment. Prior to the adoption of the new revenue standard, all programs with resale value guarantees were accounted for as operating leases.

Direct Vehicle Leasing Program

We have outstanding leases under our direct vehicle leasing programs in the U.S., Canada and in certain countries in Europe. As of December 31, 2019, the direct vehicle leasing program is offered for all new Model S, Model X and Model 3 vehicles in the U.S. and for new Model S and Model X vehicles in Canada. Qualifying customers are permitted to lease a vehicle directly from Tesla for up to 48 months. At the end of the lease term, customers are required to return the vehicles to us or for Model S and Model X leases, may opt to purchase the vehicles for a pre-determined residual value. We account for these leasing transactions as operating leases. We record leasing revenues to automotive leasing revenue on a straight-line basis over the contractual term, and we record the depreciation of these vehicles to cost of automotive leasing revenue. For the years ended December 31, 2019, 2018 and 2017, we recognized \$532 million, \$393 million and \$221 million of direct vehicle leasing revenue, respectively. As of December 31, 2019 and 2018, we had deferred \$218 million and \$110 million, respectively, of lease-related upfront payments, which will be recognized on a straight-line basis over the contractual terms of the individual leases.

We capitalize shipping costs and initial direct costs such as the incremental cost of referral fees and sales commissions from the origination of automotive lease agreements as an element of operating lease vehicles, net, and subsequently amortize these costs over the term of the related lease agreement. Our policy is to exclude taxes collected from a customer from the transaction price of automotive contracts. Total capitalized costs were immaterial as of December 31, 2019 and 2018.

Vehicle Sales to Leasing Partners with a Resale Value Guarantee and a Buyback Option

We offer buyback options in connection with automotive sales with resale value guarantees with certain leasing partner sales in the United States. These transactions entail a transfer of leases, which we have originated with an end-customer, to our leasing partner. As control of the vehicles has not been transferred in accordance with the new revenue standard, these transactions were accounted for as interest bearing collateralized borrowings in accordance with ASC 840 *Leases*, prior to January 1, 2019. Under this program, cash is received for the full price of the vehicle and the collateralized borrowing value is generally recorded within resale value guarantees and the customer upfront down payment is recorded within deferred revenue. We amortize the deferred revenue amount to automotive leasing revenue on a straight-line basis over the option period and accrue interest expense based on our borrowing rate. The option period expires at the earlier of the end of the contractual option period or the pay-off of the initial loan. We capitalize vehicles under this program to operating lease vehicles, net, on the consolidated balance sheets, and we record depreciation from these vehicles to cost of automotive leasing revenue during the period the vehicle is under a lease arrangement. Cash received for these vehicles, net of revenue recognized during the period, is classified as collateralized lease (repayments) borrowings within cash flows from financing activities in the consolidated statements of cash flows. Following the adoption of ASC 842 on January 1, 2019, all new agreements under this program are accounted for as operating leases and there was no material change in the timing and amount of revenue recognized over the term. Consequently, any cash flows for new agreements are classified as operating cash activities on the consolidated statements of cash flows.

At the end of the lease term, we settle our liability in cash by either purchasing the vehicle from the leasing partner for the buyback option amount or paying a shortfall to the option amount the leasing partner may realize on the sale of the vehicle. Any remaining balances within deferred revenue and resale value guarantee will be settled to automotive leasing revenue. The end customers can extend the lease for a period of up to 6 months. In cases where the leasing partner retains ownership of the vehicle after the end of our option period, we expense the net value of the leased vehicle to cost of automotive leasing revenue. The maximum amount we could be required to pay under this program, should we decide to repurchase all vehicles, was \$214 million and \$480 million as of December 31, 2019 and 2018, respectively, including \$178 million within a 12-month period from December 31, 2019. As of December 31, 2019 and 2018, we had \$238 million and \$558 million, respectively, of such borrowings recorded in resale value guarantees and \$29 million and \$93 million, respectively, recorded in deferred revenue liability. For the year ended December 31, 2019 and 2018, we recognized \$186 million and \$332 million, respectively, of leasing revenue related to this program. The net carrying amount of operating lease vehicles under this program was \$190 million and \$469 million, respectively, as of December 31, 2019 and 2018.

Vehicle Sales to Customers with a Resale Value Guarantee where Exercise is Probable

For certain international programs where we have offered resale value guarantees to certain customers who purchased vehicles and where we expect the customer has a significant economic incentive to exercise the resale value guarantee provided to them, we continue to recognize these transactions as operating leases. The process to determine whether there is a significant economic incentive includes a comparison of a vehicle's estimated market value at the time the option is exercisable with the guaranteed resale value to determine the customer's economic incentive to exercise. We have not sold any vehicles under this program since the first half of 2017 and all current period activity relates to the exercise or cancellation of active transactions. The amount of sale proceeds equal to the resale value guarantee is deferred until the guarantee expires or is exercised. The remaining sale proceeds are deferred and recognized on a straight-line basis over the stated guarantee period to automotive leasing revenue. The guarantee period expires at the earlier of the end of the guarantee period or the pay-off of the initial loan. We capitalize the cost of these vehicles on the consolidated balance sheet as operating lease vehicles, net, and depreciate their value, less salvage value, to cost of automotive leasing revenue over the same period.

In cases where a customer retains ownership of a vehicle at the end of the guarantee period, the resale value guarantee liability and any remaining deferred revenue balances related to the vehicle are settled to automotive leasing revenue, and the net book value of the leased vehicle is expensed to cost of automotive leasing revenue. If a customer returns the vehicle to us during the guarantee period, we purchase the vehicle from the customer in an amount equal to the resale value guarantee and settle any remaining deferred balances to automotive leasing revenue, and we reclassify the net book value of the vehicle on the consolidated balance sheets to used vehicle inventory. As of December 31, 2019 and 2018, \$115 million and \$150 million, respectively, of the guarantees were exercisable by customers within the next 12 months. For the year ended December 31, 2019 and 2018, we recognized \$150 million and \$158 million, respectively, of leasing revenue related to this program. The net carrying amount of operating lease vehicles under this program was \$83 million and \$212 million, respectively, as of December 31, 2019 and 2018.

Services and Other Revenue

Services and other revenue consists of non-warranty after-sales vehicle services, sales of used vehicles, retail merchandise, sales by our acquired subsidiaries to third party customers, and vehicle insurance revenue. There were no significant changes to the timing or amount of revenue recognition as a result of our adoption of the new revenue standard.

Revenues related to repair and maintenance services are recognized over time as services are provided and extended service plans are recognized over the performance period of the service contract as the obligation represents a stand-ready obligation to the customer. We sell used vehicles, services, service plans, vehicle components and merchandise separately and thus use standalone selling prices as the basis for revenue allocation to the extent that these items are sold in transactions with other performance obligations. Payment for used vehicles, services, and merchandise are typically received at the point when control transfers to the customer or in accordance with payment terms customary to the business. Payments received for prepaid plans are refundable upon customer cancellation of the related contracts and are included within customer deposits on the consolidated balance sheet. Deferred revenue related to services and other revenue was immaterial as of December 31, 2019 and 2018.

*Energy Generation and Storage Segment*Energy Generation and Storage Sales

Energy generation and storage sales revenue consists of the sale of solar energy systems and energy storage systems to residential, small commercial, and large commercial and utility grade customers. Upon adoption of the new lease standard (refer to *Leases* section below for details), energy generation and storage sales revenue includes agreements for solar energy systems and power purchase agreements (“PPAs”) that commence after January 1, 2019, as these are now accounted for under the new revenue standard. Sales of solar energy systems to residential and small scale commercial customers consist of the engineering, design, and installation of the system. Post installation, residential and small scale commercial customers receive a proprietary monitoring system that captures and displays historical energy generation data. Residential and small scale commercial customers pay the full purchase price of the solar energy system upfront. Revenue for the design and installation obligation is recognized when control transfers, which is when we install a solar energy system and the system passes inspection by the utility or the authority having jurisdiction. Revenue for the monitoring service is recognized ratably as a stand-ready obligation over the warranty period of the solar energy system. Sales of energy storage systems to residential and small scale commercial customers consist of the installation of the energy storage system and revenue is recognized when control transfers, which is when the product has been delivered or, if we are performing installation, when installed and commissioned. Payment for such storage systems is made upon invoice or in accordance with payment terms customary to the business.

For large commercial and utility grade solar energy system and energy storage system sales which consist of the engineering, design, and installation of the system, customers make milestone payments that are consistent with contract-specific phases of a project. Revenue from such contracts is recognized over time using the percentage of completion method based on cost incurred as a percentage of total estimated contract costs for energy storage system sales and as a percentage of total estimated labor hours for solar energy system sales. Certain large-scale commercial and utility grade solar energy system and energy storage system sales also include operations and maintenance service which are negotiated with the design and installation contracts and are thus considered to be a combined contract with the design and installation service. For certain large commercial and utility grade solar energy systems and energy storage systems where the percentage of completion method does not apply, revenue is recognized when control transfers, which is when the product has been delivered to the customer and commissioned for energy storage systems and when the project has received permission to operate from the utility for solar energy systems. Operations and maintenance service revenue is recognized ratably over the respective contract term for solar energy system sales and upon delivery of the service for energy storage system sales. Customer payments for such services are usually paid annually or quarterly in advance.

In instances where there are multiple performance obligations in a single contract, we allocate the consideration to the various obligations in the contract based on the relative standalone selling price method. Standalone selling prices are estimated based on estimated costs plus margin or using market data for comparable products. Costs incurred on the sale of residential installations before the solar energy systems are completed are included as work in process within inventory in the consolidated balance sheets. However, any fees that are paid or payable by us to a solar loan lender would be recognized as an offset against revenue. Costs to obtain a contract relate mainly to commissions paid to our sales personnel related to the sale of solar energy systems and energy storage systems. As our contract costs related to solar energy system and energy storage system sales are typically fulfilled within one year, the costs to obtain a contract are expensed as incurred.

As part of our solar energy system and energy storage system contracts, we may provide the customer with performance guarantees that warrant that the underlying system will meet or exceed the minimum energy generation or retention requirements specified in the contract. In certain instances, we may receive a bonus payment if the system performs above a specified level. Conversely, if a solar energy system or energy storage system does not meet the performance guarantee requirements, we may be required to pay liquidated damages. Other forms of variable consideration related to our large commercial and utility grade solar energy system and energy storage system contracts include variable customer payments that will be made based on our energy market participation activities. Such guarantees and variable customer payments represent a form of variable consideration and are estimated at contract inception at their most likely amount and updated at the end of each reporting period as additional performance data becomes available. Such estimates are included in the transaction price only to the extent that it is probable a significant reversal of revenue will not occur.

We record as deferred revenue any non-refundable amounts that are collected from customers related to fees charged for prepayments and remote monitoring service and operations and maintenance service, which is recognized as revenue ratably over the respective customer contract term. As of December 31, 2019 and 2018, deferred revenue related to such customer payments amounted to \$156 million and \$149 million, respectively. Revenue recognized from the deferred revenue balance as of December 31, 2018 was \$41 million for the year ended December 31, 2019. Revenue recognized from the deferred revenue balance as of January 1, 2018 was \$41 million for the year ended December 31, 2018. We have elected the practical expedient to omit disclosure of the amount of the transaction price allocated to remaining performance obligations for energy generation and storage sales with an original expected contract length of one year or less and the amount that we have the right to invoice when that amount corresponds directly with the value of the performance to date. As of December 31, 2019, total transaction price allocated to performance obligations that were unsatisfied or partially unsatisfied for contracts with an original expected length of more than one year was \$103 million. Of this amount, we expect to recognize \$5 million in the next 12 months and the remaining over a period up to 28 years.

Energy Generation and Storage Leasing

For revenue arrangements where we are the lessor under operating lease agreements for energy generation and storage products, we record lease revenue from minimum lease payments, including upfront rebates and incentives earned from such systems, on a straight-line basis over the life of the lease term, assuming all other revenue recognition criteria have been met. The difference between the payments received and the revenue recognized is recorded as deferred revenue on the consolidated balance sheet.

For solar energy systems where customers purchase electricity from us under PPAs prior to January 1, 2019, we have determined that these agreements should be accounted for as operating leases pursuant to ASC 840. Revenue is recognized based on the amount of electricity delivered at rates specified under the contracts, assuming all other revenue recognition criteria are met.

We record as deferred revenue any amounts that are collected from customers, including lease prepayments, in excess of revenue recognized and operations and maintenance service, which is recognized as revenue ratably over the respective customer contract term. As of December 31, 2019 and 2018, deferred revenue related to such customer payments amounted to \$226 million and \$225 million, respectively. Deferred revenue also includes the portion of rebates and incentives received from utility companies and various local and state government agencies, which is recognized as revenue over the lease term. As of December 31, 2019 and December 31, 2018, deferred revenue from rebates and incentives amounted to \$36 million and \$37 million, respectively.

We capitalize initial direct costs from the execution of agreements for solar energy systems and PPAs, which include the referral fees and sales commissions, as an element of solar energy systems, net, and subsequently amortize these costs over the term of the related agreements.

Revenue by source

The following table disaggregates our revenue by major source (in millions):

	Year Ended December 31,	
	2019	2018
Automotive sales without resale value guarantee	\$ 19,212	\$ 15,810
Automotive sales with resale value guarantee (1)	146	1,403
Automotive regulatory credits	594	419
Energy generation and storage sales (2)	1,000	1,056
Services and other	2,226	1,391
Total revenues from sales and services	23,178	20,079
Automotive leasing	869	883
Energy generation and storage leasing (2)	531	499
Total revenues	\$ 24,578	\$ 21,461

- (1) We made pricing adjustments to our vehicle offerings in 2019, which resulted in a reduction of automotive sales with resale value guarantee revenues. Refer to *Automotive Sales with Resale Value Guarantee* section above for details. The amount presented represents automotive sales with resale value guarantee in year ended December 31, 2019 net of such pricing adjustments impact.
- (2) Under ASC 842, *Leases*, solar energy system sales and PPAs that commence after January 1, 2019, where we are the lessor and were previously accounted for as leases, no longer meet the definition of a lease and are instead accounted for in accordance with the new revenue standard (refer to the *Leases* section below for details).

*Cost of Revenues**Automotive Segment**Automotive Sales*

Cost of automotive sales revenue includes direct parts, material and labor costs, manufacturing overhead, including depreciation costs of tooling and machinery, shipping and logistic costs, vehicle connectivity costs, allocations of electricity and infrastructure costs related to our Supercharger network, and reserves for estimated warranty expenses. Cost of automotive sales revenues also includes adjustments to warranty expense and charges to write down the carrying value of our inventory when it exceeds its estimated net realizable value and to provide for obsolete and on-hand inventory in excess of forecasted demand.

Automotive Leasing

Cost of automotive leasing revenue includes primarily the amortization of operating lease vehicles over the lease term, as well as warranty expenses recognized as incurred. Cost of automotive leasing revenue also includes vehicle connectivity costs and allocations of electricity and infrastructure costs related to our Supercharger network for vehicles under our leasing programs.

Services and Other

Costs of services and other revenue includes costs associated with providing non-warranty after-sales services, costs to acquire and certify used vehicles, costs for retail merchandise, and costs to provide vehicle insurance. Cost of services and other revenue also includes direct parts, material and labor costs, manufacturing overhead associated with the sales by our acquired subsidiaries to third party customers.

*Energy Generation and Storage Segment**Energy Generation and Storage*

Energy generation and storage cost of revenue includes direct and indirect material and labor costs, warehouse rent, freight, warranty expense, other overhead costs and amortization of certain acquired intangible assets. In addition, where arrangements are accounted for as operating leases, the cost of revenue is primarily comprised of depreciation of the cost of leased solar energy systems, maintenance costs associated with those systems and amortization of any initial direct costs.

Leases

In February 2016, the FASB issued ASU No. 2016-02 ("ASC 842"), Leases, to require lessees to recognize all leases, with certain exceptions, on the balance sheet, while recognition on the statement of operations will remain similar to lease accounting under ASC 840. Subsequently, the FASB issued ASU No. 2018-10, Codification Improvements to Topic 842, Leases, ASU No. 2018-11, Targeted Improvements, ASU No. 2018-20, Narrow-Scope Improvements for Lessors, and ASU 2019-01, Codification Improvements, to clarify and amend the guidance in ASU No. 2016-02. ASC 842 eliminates real estate-specific provisions and modifies certain aspects of lessor accounting. We adopted ASC 842 as of January 1, 2019 using the cumulative effect adjustment approach ("adoption of the new lease standard"). In addition, we elected the package of practical expedients permitted under the transition guidance within the new standard, which allowed us to carry forward the historical determination of contracts as leases, lease classification and not reassess initial direct costs for historical lease arrangements. Accordingly, previously reported financial statements, including footnote disclosures, have not been recast to reflect the application of the new standard to all comparative periods presented. The finance lease classification under ASC 842 includes leases previously classified as capital leases under ASC 840.

Agreements for solar energy system leases and PPAs (solar leases) that commence after January 1, 2019, where we are the lessor and were previously accounted for as operating leases no longer meet the definition of a lease upon the adoption of ASC 842 and are instead accounted for in accordance with the revenue standard. Under these two types of arrangements, the customer is not responsible for the design of the energy system but rather approved the energy system benefits in terms of energy capacity and production to be received over the term. Accordingly, the revenue from solar leases commencing after January 1, 2019 are now recognized as earned, based on the amount of capacity provided or electricity delivered at the contractual billing rates, assuming all other revenue recognition criteria have been met. Under the practical expedient available under ASC 606-10-55-18, we recognize revenue based on the value of the service which is consistent with the billing amount.

We have lease agreements with lease and non-lease components, and have elected to utilize the practical expedient to account for lease and non-lease components together as a single combined lease component, from both a lessee and lessor perspective. From a lessor perspective, the timing and pattern of transfer are the same for the non-lease components and associated lease component and, the lease component, if accounted for separately, would be classified as an operating lease. Additionally, leases previously identified as build-to-suit leasing arrangements under legacy lease accounting (ASC 840), were derecognized pursuant to the transition guidance provided for build-to-suit leases in ASC 842. Accordingly, these leases have been reassessed as operating leases as of the adoption date under ASC 842, and are included on the consolidated balance sheet as of December 31, 2019.

Operating lease assets are included within operating lease right-of-use assets, and the corresponding operating lease liabilities are included within accrued liabilities and other for the current portion, and within other long-term liabilities for the long-term portion on our consolidated balance sheet as of December 31, 2019. Finance lease assets are included within property, plant and equipment, net, and the corresponding finance lease liabilities are included within current portion of long-term debt and finance leases for the current portion, and within long-term debt and finance leases, net of current portion for the long-term portion on our consolidated balance sheet as of December 31, 2019.

We have elected not to present short-term leases on the consolidated balance sheet as these leases have a lease term of 12 months or less at lease inception and do not contain purchase options or renewal terms that we are reasonably certain to exercise. All other lease assets and lease liabilities are recognized based on the present value of lease payments over the lease term at commencement date. Because most of our leases do not provide an implicit rate of return, we used our incremental borrowing rate based on the information available at adoption date in determining the present value of lease payments.

Adoption of the new lease standard on January 1, 2019 had a material impact on our consolidated financial statements. The most significant impacts related to the (i) recognition of right-of-use ("ROU") assets of \$1.29 billion and lease liabilities of \$1.24 billion for operating leases on the consolidated balance sheet, and (ii) de-recognition of build-to-suit lease assets and liabilities of \$1.62 billion and \$1.74 billion, respectively, with the net impact of \$97 million recorded to accumulated deficit, as of January 1, 2019. We also reclassified prepaid expenses and other current asset balances of \$142 million and deferred rent balance, including tenant improvement allowances, and other liability balances of \$70 million relating to our existing lease arrangements as of December 31, 2018, into the ROU asset balance as of January 1, 2019. ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. The standard did not materially impact our consolidated statement of operations and consolidated statement of cash flows.

The cumulative effect of the changes made to our consolidated balance sheet as of January 1, 2019 for the adoption of the new lease standard was as follows (in millions):

	Balances at December 31, 2018	Adjustments from Adoption of New Lease Standard	Balances at January 1, 2019
Assets			
Prepaid expenses and other current assets	\$ 366	\$ —	\$ 366
Property, plant and equipment, net	11,330	(1,617)	9,713
Operating lease right-of-use assets	—	1,286	1,286
Other assets	572	(141)	431
Liabilities			
Accrued liabilities and other	2,094	118	2,212
Current portion of long-term debt and finance leases	2,568	—	2,568
Long-term debt and finance leases, net of current portion	9,404	—	9,404
Other long-term liabilities	2,710	(687)	2,023
Equity			
Accumulated deficit	(5,318)	97	(5,221)

Research and Development Costs

Research and development costs are expensed as incurred.

Marketing, Promotional and Advertising Costs

Marketing, promotional and advertising costs are expensed as incurred and are included as an element of selling, general and administrative expense in the consolidated statement of operations. We incurred marketing, promotional and advertising costs of \$27 million, \$32 million and \$37 million in the years ended December 31, 2019, 2018 and 2017, respectively, of which the majority is related to promotional activities.

Income Taxes

Income taxes are computed using the asset and liability method, under which deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized.

We record liabilities related to uncertain tax positions when, despite our belief that our tax return positions are supportable, we believe that it is more likely than not that those positions may not be fully sustained upon review by tax authorities. Accrued interest and penalties related to unrecognized tax benefits are classified as income tax expense.

Comprehensive Income (Loss)

Comprehensive income (loss) is comprised of net income (loss) and other comprehensive income (loss). Other comprehensive income (loss) consists of unrealized gains and losses on cash flow hedges and foreign currency translation adjustments that have been excluded from the determination of net income (loss).

Stock-Based Compensation

We recognize compensation expense for costs related to all share-based payments, including stock options, restricted stock units (“RSUs”) and our employee stock purchase plan (the “ESPP”). The fair value of stock option awards with only service and/or performance conditions and the ESPP is estimated on the grant or offering date using the Black-Scholes option-pricing model. The fair value of RSUs is measured on the grant date based on the closing fair market value of our common stock. Stock-based compensation expense is recognized on a straight-line basis over the requisite service period, net of actual forfeitures in the period.

For performance-based awards, stock-based compensation expense is recognized over the expected performance achievement period of individual performance milestones when the achievement of each individual performance milestone becomes probable. For performance-based awards with a vesting schedule based entirely on the attainment of both performance and market conditions, stock-based compensation expense associated with each tranche is recognized over the longer of (i) the expected achievement period for the operational milestone for such tranche and (ii) the expected achievement period for the related market capitalization milestone determined on the grant date, beginning at the point in time when the relevant operational milestone is considered probable of being met. If such operational milestone becomes probable any time after the grant date, we will recognize a cumulative catch-up expense from the grant date to that point in time. If the related market capitalization milestone is achieved earlier than its expected achievement period and the achievement of the related operational milestone, then the stock-based compensation expense will be recognized over the expected achievement period for the operational milestone, which may accelerate the rate at which such expense is recognized. The fair value of such awards is estimated on the grant date using Monte Carlo simulations (see Note 14, *Equity Incentive Plans*).

As we accumulate additional employee stock-based awards data over time and as we incorporate market data related to our common stock, we may calculate significantly different volatilities and expected lives, which could materially impact the valuation of our stock-based awards and the stock-based compensation expense that we will recognize in future periods. Stock-based compensation expense is recorded in cost of revenues, research and development expense and selling, general and administrative expense in the consolidated statements of operations.

Noncontrolling Interests and Redeemable Noncontrolling Interests

Noncontrolling interests and redeemable noncontrolling interests represent third-party interests in the net assets under certain funding arrangements, or funds, that we enter into to finance the costs of solar energy systems and vehicles under operating leases. We have determined that the contractual provisions of the funds represent substantive profit sharing arrangements. We have further determined that the appropriate methodology for calculating the noncontrolling interest and redeemable noncontrolling interest balances that reflects the substantive profit sharing arrangements is a balance sheet approach using the hypothetical liquidation at book value (“HLBV”) method. We, therefore, determine the amount of the noncontrolling interests and redeemable noncontrolling interests in the net assets of the funds at each balance sheet date using the HLBV method, which is presented on the consolidated balance sheet as noncontrolling interests in subsidiaries and redeemable noncontrolling interests in subsidiaries. Under the HLBV method, the amounts reported as noncontrolling interests and redeemable noncontrolling interests in the consolidated balance sheet represent the amounts the third-parties would hypothetically receive at each balance sheet date under the liquidation provisions of the funds, assuming the net assets of the funds were liquidated at their recorded amounts determined in accordance with GAAP and with tax laws effective at the balance sheet date and distributed to the third-parties. The third-parties’ interests in the results of operations of the funds are determined as the difference in the noncontrolling interest and redeemable noncontrolling interest balances in the consolidated balance sheets between the start and end of each reporting period, after taking into account any capital transactions between the funds and the third-parties. However, the redeemable noncontrolling interest balance is at least equal to the redemption amount. The redeemable noncontrolling interest balance is presented as temporary equity in the mezzanine section of the consolidated balance sheet since these third-parties have the right to redeem their interests in the funds for cash or other assets.

Net Income (Loss) per Share of Common Stock Attributable to Common Stockholders

Basic net income (loss) per share of common stock attributable to common stockholders is calculated by dividing net income (loss) attributable to common stockholders by the weighted-average shares of common stock outstanding for the period. During the year ended December 31, 2019, we increased net loss attributable to common stockholders by \$8 million to arrive at the numerator used to calculate net loss per share. This adjustment represents the difference between the cash we paid to a financing fund investor for their noncontrolling interest in one of our subsidiaries and the carrying amount of the noncontrolling interest on our consolidated balance sheet, in accordance with ASC 260, *Earnings per Share*. Potentially dilutive shares, which are based on the weighted-average shares of common stock underlying outstanding stock-based awards, warrants and convertible senior notes using the treasury stock method or the if-converted method, as applicable, are included when calculating diluted net income (loss) per share of common stock attributable to common stockholders when their effect is dilutive. Since we intend to settle or have settled in cash the principal outstanding under our 0.25% Convertible Senior Notes due in 2019, 1.25% Convertible Senior Notes due in 2021, 2.375% Convertible Senior Notes due in 2022, 2.00% Convertible Senior Notes due in 2024 and 5.50% Convertible Senior Notes due in 2022 (assumed in our Maxwell Technologies, Inc. acquisition), we use the treasury stock method when calculating their potential dilutive effect, if any. Furthermore, in connection with the offerings of our notes, we entered into convertible note hedges and warrants (see Note 12, *Debt*). However, our convertible note hedges are not included when calculating potentially dilutive shares since their effect is always anti-dilutive. Warrants which have a strike price above our share price were out of the money and have not been included in the table below.

The following table presents the potentially dilutive shares that were excluded from the computation of diluted net income (loss) per share of common stock attributable to common stockholders, because their effect was anti-dilutive (in millions):

	Year Ended December 31,		
	2019	2018	2017
Stock-based awards	10	10	10
Convertible senior notes	1	1	2
Warrants	—	—	1

Business Combinations

We account for business acquisitions under ASC 805, *Business Combinations*. The total purchase consideration for an acquisition is measured as the fair value of the assets given, equity instruments issued and liabilities assumed at the acquisition date. Costs that are directly attributable to the acquisition are expensed as incurred. Identifiable assets (including intangible assets), liabilities assumed (including contingent liabilities) and noncontrolling interests in an acquisition are measured initially at their fair values at the acquisition date. We recognize goodwill if the fair value of the total purchase consideration and any noncontrolling interests is in excess of the net fair value of the identifiable assets acquired and the liabilities assumed. We recognize a bargain purchase gain within other income (expense), net, on the consolidated statement of operations if the net fair value of the identifiable assets acquired and the liabilities assumed is in excess of the fair value of the total purchase consideration and any noncontrolling interests. We include the results of operations of the acquired business in the consolidated financial statements beginning on the acquisition date.

Cash and Cash Equivalents

All highly liquid investments with an original maturity of three months or less at the date of purchase are considered cash equivalents. Our cash equivalents are primarily comprised of money market funds.

Restricted Cash

We maintain certain cash balances restricted as to withdrawal or use. Our restricted cash is comprised primarily of cash as collateral for our sales to lease partners with a resale value guarantee, letters of credit, real estate leases, insurance policies, credit card borrowing facilities and certain operating leases. In addition, restricted cash includes cash received from certain fund investors that have not been released for use by us and cash held to service certain payments under various secured debt facilities.

The following table totals cash and cash equivalents and restricted cash as reported on the consolidated balance sheets; the sums are presented in the consolidated statements of cash flows (in millions):

	December 31, 2019	December 31, 2018	December 31, 2017	December 31, 2016
Cash and cash equivalents	\$ 6,268	\$ 3,686	\$ 3,368	\$ 3,393
Restricted cash, current portion	246	193	155	106
Restricted cash, net of current portion	269	398	442	268
Total as presented in the consolidated statements of cash flows	<u>\$ 6,783</u>	<u>\$ 4,277</u>	<u>\$ 3,965</u>	<u>\$ 3,767</u>

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable primarily include amounts related to receivables from financial institutions and leasing companies offering various financing products to our customers, sales of energy generation and storage products, sales of regulatory credits to other automotive manufacturers and maintenance services on vehicles owned by leasing companies. We provide an allowance against accounts receivable to the amount we reasonably believe will be collected. We write-off accounts receivable when they are deemed uncollectible.

We typically do not carry significant accounts receivable related to our vehicle and related sales as customer payments are due prior to vehicle delivery, except for amounts due from commercial financial institutions for approved financing arrangements between our customers and the financial institutions.

MyPower Customer Notes Receivable

We have customer notes receivable under the legacy MyPower loan program. MyPower was offered by SolarCity to provide residential customers with the option to finance the purchase of a solar energy system through a 30-year loan. The outstanding balances, net of any allowance for potentially uncollectible amounts, are presented on the consolidated balance sheet as a component of prepaid expenses and other current assets for the current portion and as MyPower customer notes receivable, net of current portion, for the long-term portion. In determining the allowance and credit quality for customer notes receivable, we identify significant customers with known disputes or collection issues and also consider our historical level of credit losses and current economic trends that might impact the level of future credit losses. Customer notes receivable that are individually impaired are charged-off as a write-off of the allowance for losses. Since acquisition, there have been no new significant customers with known disputes or collection issues, and the amount of potentially uncollectible amounts has been insignificant. In addition, there were no material non-accrual or past due customer notes receivable as of December 31, 2019.

*Concentration of Risk**Credit Risk*

Financial instruments that potentially subject us to a concentration of credit risk consist of cash, cash equivalents, restricted cash, accounts receivable, convertible note hedges, and interest rate swaps. Our cash balances are primarily invested in money market funds or on deposit at high credit quality financial institutions in the U.S. These deposits are typically in excess of insured limits. As of December 31, 2019 and 2018, no entity represented 10% or more of our total accounts receivable balance. The risk of concentration for our interest rate swaps is mitigated by transacting with several highly-rated multinational banks.

Supply Risk

We are dependent on our suppliers, the majority of which are single source suppliers, and the inability of these suppliers to deliver necessary components of our products in a timely manner at prices, quality levels and volumes acceptable to us, or our inability to efficiently manage these components from these suppliers, could have a material adverse effect on our business, prospects, financial condition and operating results.

Inventory Valuation

Inventories are stated at the lower of cost or net realizable value. Cost is computed using standard cost for vehicles and energy storage products, which approximates actual cost on a first-in, first-out basis. In addition, cost for solar energy systems is recorded using actual cost. We record inventory write-downs for excess or obsolete inventories based upon assumptions about current and future demand forecasts. If our inventory on-hand is in excess of our future demand forecast, the excess amounts are written-off.

We also review our inventory to determine whether its carrying value exceeds the net amount realizable upon the ultimate sale of the inventory. This requires us to determine the estimated selling price of our vehicles less the estimated cost to convert the inventory on-hand into a finished product. Once inventory is written-down, a new, lower cost basis for that inventory is established and subsequent changes in facts and circumstances do not result in the restoration or increase in that newly established cost basis.

Should our estimates of future selling prices or production costs change, additional and potentially material increases to this reserve may be required. A small change in our estimates may result in a material charge to our reported financial results.

Operating Lease Vehicles

Vehicles that are leased as part of our direct vehicle leasing program, vehicles delivered to leasing partners with a resale value guarantee and a buyback option, and vehicles delivered to customers with resale value guarantee where exercise is probable are classified as operating lease vehicles as the related revenue transactions are treated as operating leases under ASC 842 (refer to the *Automotive Leasing Revenue* section above for details). Operating lease vehicles are recorded at cost less accumulated depreciation. We generally depreciate their value, less salvage value, using the straight-line-method to cost of automotive leasing revenue over the contractual period. The total cost of operating lease vehicles recorded on the consolidated balance sheets as of December 31, 2019 and 2018 was \$2.85 billion and \$2.55 billion, respectively. Accumulated depreciation related to leased vehicles as of December 31, 2019 and 2018 was \$406 million and \$458 million, respectively.

Solar Energy Systems, Net

We are the lessor of solar energy systems. Prior to January 1, 2019, these leases were accounted for as operating leases in accordance with ASC 840. Under ASC 840, to determine lease classification, we evaluated the lease terms to determine whether there was a transfer of ownership or bargain purchase option at the end of the lease, whether the lease term was greater than 75% of the useful life or whether the present value of the minimum lease payments exceeded 90% of the fair value at lease inception. As discussed in the *Leases* section above, agreements for solar energy system leases and PPAs that commence after January 1, 2019 no longer meet the definition of a lease upon the adoption of ASC 842 and are instead accounted for in accordance with the new revenue standard. We utilize periodic appraisals to estimate useful lives and fair values at lease inception and residual values at lease termination. Solar energy systems are stated at cost less accumulated depreciation.

Depreciation and amortization is calculated using the straight-line method over the estimated useful lives of the respective assets, as follows:

Solar energy systems in service	30 to 35 years
Initial direct costs related to customer solar energy system lease acquisition costs	Lease term (up to 25 years)

Solar energy systems pending interconnection will be depreciated as solar energy systems in service when they have been interconnected and placed in-service. Solar energy systems under construction represents systems that are under installation, which will be depreciated as solar energy systems in service when they are completed, interconnected and placed in service. Initial direct costs related to customer solar energy system agreement acquisition costs are capitalized and amortized over the term of the related customer agreements.

Property, Plant and Equipment, net

Property, plant and equipment, net, including leasehold improvements, are recognized at cost less accumulated depreciation. Depreciation is generally computed using the straight-line method over the estimated useful lives of the respective assets, as follows:

Machinery, equipment, vehicles and office furniture	2 to 12 years
Building and building improvements	15 to 30 years
Computer equipment and software	3 to 10 years

Leasehold improvements are depreciated on a straight-line basis over the shorter of their estimated useful lives or the terms of the related leases.

Upon the retirement or sale of our property, plant and equipment, the cost and associated accumulated depreciation are removed from the consolidated balance sheet, and the resulting gain or loss is reflected on the consolidated statement of operations. Maintenance and repair expenditures are expensed as incurred while major improvements that increase the functionality, output or expected life of an asset are capitalized and depreciated ratably over the identified useful life.

Interest expense on outstanding debt is capitalized during the period of significant capital asset construction. Capitalized interest on construction-in-progress is included within property, plant and equipment and is amortized over the life of the related assets.

Prior to the adoption of the new lease standard, we were deemed to be the owner, for accounting purposes, during the construction phase of certain long-lived assets under build-to-suit lease arrangements because of our involvement with the construction, our exposure to any potential cost overruns or our other commitments under the arrangements. In accordance with ASC 840, we recognized build-to-suit lease assets under construction and corresponding build-to-suit lease liabilities on the consolidated balance sheet. Once construction was completed, if a lease met certain “sale-leaseback” criteria, we removed the asset and liability and accounted for the lease as an operating lease. Otherwise, the lease was accounted for as a capital lease. As a result of the adoption of the new lease standard on January 1, 2019, we have de-recognized all build-to-suit lease assets and have reassessed these leases to be operating lease right-of-use assets within the consolidated balance sheet as of December 31, 2019 (refer to *Leases* section above for details).

Long-Lived Assets Including Acquired Intangible Assets

We review our property, plant and equipment, long-term prepayments and intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset (or asset group) may not be recoverable. We measure recoverability by comparing the carrying amount to the future undiscounted cash flows that the asset is expected to generate. If the asset is not recoverable, its carrying amount would be adjusted-down to its fair value. For the years ended December 31, 2019 and 2018, we have recognized certain impairments of our long-lived assets (refer to Note 4, *Goodwill and Intangible Assets* and Note 22, *Restructuring and Other*, for further details). For the year ended December 31, 2017, we have recognized no material impairments of our long-lived assets.

Intangible assets with definite lives are amortized on a straight-line basis over their estimated useful lives, which range from one to thirty years.

Goodwill

We assess goodwill for impairment annually in the fourth quarter, or more frequently if events or changes in circumstances indicate that it might be impaired, by comparing its carrying value to the reporting unit’s fair value. For the years ended December 31, 2019, 2018, and 2017, we had not recognized any impairment of goodwill.

Capitalization of Software Costs

For costs incurred in development of internal use software, we capitalize costs incurred during the application development stage. Costs related to preliminary project activities and post-implementation activities are expensed as incurred. Internal use software is amortized on a straight-line basis over its estimated useful life of three to ten years. We evaluate the useful lives of these assets on an annual basis, and we test for impairment whenever events or changes in circumstances occur that could impact the recoverability of these assets.

Foreign Currency

We determine the functional and reporting currency of each of our international subsidiaries and their operating divisions based on the primary currency in which they operate. In cases where the functional currency is not the U.S. dollar, we recognize a cumulative translation adjustment created by the different rates we apply to accumulated deficits, including current period income or loss and the balance sheet. For each subsidiary, we apply the monthly average functional exchange rate to its monthly income or loss and the month-end functional currency rate to translate the balance sheet.

Foreign currency transaction gains and losses are a result of the effect of exchange rate changes on transactions denominated in currencies other than the functional currency. Transaction gains and losses are recognized in other income (expense), net, in the consolidated statements of operations. For the years ended December 31, 2019, 2018 and 2017, we recorded foreign currency transaction gains of \$48 million, gains of \$2 million and losses of \$52 million, respectively.

Warranties

We provide a manufacturer's warranty on all new and used vehicles and production powertrain components and systems we sell. In addition, we also provide a warranty on the installation and components of the energy generation and storage systems we sell for periods typically between 10 to 25 years. We accrue a warranty reserve for the products sold by us, which includes our best estimate of the projected costs to repair or replace items under warranties and recalls when identified. These estimates are based on actual claims incurred to date and an estimate of the nature, frequency and costs of future claims. These estimates are inherently uncertain given our relatively short history of sales, and changes to our historical or projected warranty experience may cause material changes to the warranty reserve in the future. The warranty reserve does not include projected warranty costs associated with our vehicles subject to lease accounting and our solar energy systems under lease contracts or PPAs, as the costs to repair these warranty claims are expensed as incurred. The portion of the warranty reserve expected to be incurred within the next 12 months is included within accrued liabilities and other, while the remaining balance is included within other long-term liabilities on the consolidated balance sheets. Warranty expense is recorded as a component of cost of revenues in the consolidated statements of operations. Due to the magnitude of our automotive business, accrued warranty balance as of December 31, 2019 was primarily related to our automotive segment. Accrued warranty activity consisted of the following (in millions):

	Year Ended December 31,		
	2019	2018	2017
Accrued warranty—beginning of period	\$ 748	\$ 402	\$ 267
Assumed warranty liability from acquisition	—	—	5
Warranty costs incurred	(250)	(209)	(123)
Net changes in liability for pre-existing warranties, including expirations and foreign exchange impact	36	(26)	4
Additional warranty accrued from adoption of the new revenue standard	—	37	—
Provision for warranty	555	544	249
Accrued warranty—end of period	<u>\$ 1,089</u>	<u>\$ 748</u>	<u>\$ 402</u>

For the years ended December 31, 2019 and 2018, and 2017, warranty costs incurred for vehicles accounted for as operating leases were \$0 million, \$22 million and \$36 million, respectively.

Solar Renewable Energy Credits

We account for solar renewable energy credits ("SRECs") when they are purchased by us or sold to third-parties. For SRECs generated by solar energy systems owned by us and minted by government agencies, we do not recognize any specifically identifiable costs as there are no specific incremental costs incurred to generate the SRECs. We recognize revenue within the energy generation and storage segment from the sale of an SREC when the SREC is transferred to the buyer, and the cost of the SREC, if any, is then recorded to energy generation and storage cost of revenue.

Deferred Investment Tax Credit Revenue

We have solar energy systems that are eligible for ITCs that accrue to eligible property under the Internal Revenue Code ("IRC"). Under Section 50(d)(5) of the IRC and the related regulations, a lessor of qualifying property may elect to treat the lessee as the owner of such property for the purposes of claiming the ITCs associated with such property. These regulations enable the ITCs to be separated from the ownership of the property and allow the transfer of the ITCs. Under our lease pass-through fund arrangements, we can make a tax election to pass-through the ITCs to the investors, who are the legal lessee of the property. Therefore, we are able to monetize these ITCs to the investors who can utilize them in return for cash payments. We consider the monetization of ITCs to constitute one of the key elements of realizing the value associated with solar energy systems. Consequently, we consider the proceeds from the monetization of ITCs to be a component of revenue generated from solar energy systems.

Under the new revenue standard, we recognize revenue upon the delivery of ITCs to investors under our lease pass-through fund arrangements as this is the point in time that control of ITCs has transferred.

We indemnify the investors for any recapture of ITCs due to our non-compliance. We have concluded that the likelihood of a recapture event is remote, and consequently, we have not recognized a liability for this indemnification on the consolidated balance sheets.

Nevada Tax Incentives

We had entered into agreements with the State of Nevada and Storey County in Nevada that provide abatements for sales, use, real property, personal property and employer excise taxes, discounts to the base tariff energy rates and transferable tax credits. These incentives are available for the applicable periods beginning on October 17, 2014 and ending on either June 30, 2024 or June 30, 2034 (depending on the incentive). Under these agreements, we were eligible for a maximum of \$195 million of transferable tax credits, subject to capital investments by us and our partners for Gigafactory Nevada of at least \$3.50 billion, which we exceeded during 2017, and specified hiring targets for Gigafactory Nevada, which we exceeded during 2018. We recorded these credits as earned when we had evidence there was a market for their sale. Credits were applied as a cost offset to either employee expense or to capital assets, depending on the source of the credits. Credits earned from employee hires or capital spending by our partners at Gigafactory Nevada were recorded as a reduction to operating expenses. As of December 31, 2019 and 2018, we had earned the maximum of \$195 million of transferable tax credits under these agreements.

Recent Accounting Pronouncements

Recently issued accounting pronouncements not yet adopted

In June 2016, the FASB issued ASU No. 2016-13, Measurement of Credit Losses on Financial Instruments, to require financial assets carried at amortized cost to be presented at the net amount expected to be collected based on historical experience, current conditions and forecasts. Subsequently, the FASB issued ASU No. 2018-19, Codification Improvements to Topic 326, to clarify that receivables arising from operating leases are within the scope of lease accounting standards. Further, the FASB issued ASU No. 2019-04, ASU No. 2019-05, ASU 2019-10 and ASU 2019-11 to provide additional guidance on the credit losses standard. The ASUs are effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted. Adoption of the ASUs is on a modified retrospective basis. We plan to adopt the ASUs on January 1, 2020. The ASUs are currently not expected to have a material impact on our consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, Simplifying the Test for Goodwill Impairment, to simplify the test for goodwill impairment by removing Step 2. An entity will, therefore, perform the goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognizing an impairment charge for the amount by which the carrying amount exceeds the fair value, not to exceed the total amount of goodwill allocated to the reporting unit. An entity still has the option to perform a qualitative assessment to determine if the quantitative impairment test is necessary. The ASU is effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted. Adoption of the ASU is prospective. We plan to adopt the ASU prospectively on January 1, 2020. The ASU is currently not expected to have a material impact on our consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that Is a Service Contract. The ASU aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). The ASU is effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted. Adoption of the ASU is either retrospective or prospective. We plan to adopt the ASU prospectively on January 1, 2020. The ASU is currently not expected to have a material impact on our consolidated financial statements.

In December 2019, the FASB issued ASU No. 2019-12, *Simplifying the Accounting for Income Taxes*, as part of its initiative to reduce complexity in accounting standards. The amendments in the ASU are effective for fiscal years beginning after December 15, 2020, including interim periods therein. Early adoption of the standard is permitted, including adoption in interim or annual periods for which financial statements have not yet been issued. We have not early adopted this ASU for 2019. The ASU is currently not expected to have a material impact on our consolidated financial statements.

Recently adopted accounting pronouncements

In February 2016, the FASB issued ASU No. 2016-02, *Leases*, to require lessees to recognize all leases, with limited exceptions, on the balance sheet, while recognition on the statement of operations will remain similar to legacy lease accounting, ASC 840. The ASU also eliminates real estate-specific provisions and modifies certain aspects of lessor accounting. Subsequently, the FASB issued ASU No. 2018-10, *Codification Improvements to Topic 842*, ASU No. 2018-11, *Targeted Improvements*, ASU No. 2018-20, *Narrow-Scope Improvements for Lessors*, and ASU 2019-01, *Codification Improvements*, to clarify and amend the guidance in ASU No. 2016-02. We adopted the ASUs on January 1, 2019 on a modified retrospective basis through a cumulative adjustment to our beginning accumulated deficit balance. Prior comparative periods have not been recast under this method, and we adopted all available practical expedients, as applicable. Further, solar leases that commence on or after January 1, 2019, where we are the lessor and which were accounted for as leases under ASC 840, will no longer meet the definition of a lease. Instead, solar leases commencing on or after January 1, 2019 will be accounted for under the new revenue standard. In addition to recognizing operating leases that were previously not recognized on the consolidated balance sheet, our build-to-suit leases were also de-recognized with a net decrease of approximately \$97 million to our beginning accumulated deficit after income tax effects, as our build-to-suit leases no longer qualify for build-to-suit accounting and are instead recognized as operating leases. Upon adoption, our consolidated balance sheet include an overall reduction in assets of \$473 million and a reduction in liabilities of \$570 million. The adoption of the ASUs did not have a material impact on the consolidated statement of operations or the consolidated statement of cash flows.

In August 2017, the FASB issued ASU No. 2017-12, *Targeted Improvements to Accounting for Hedging Activities*, to simplify the application of current hedge accounting guidance. The ASU expands and refines hedge accounting for both non-financial and financial risk components and aligns the recognition and presentation of the effects of the hedging instrument and the hedged item in the financial statements. We adopted the ASU prospectively on January 1, 2019, and the ASU did not have a material impact on the consolidated financial statements.

In January 2018, the FASB issued ASU No. 2018-01, *Land Easement Practical Expedient Transition to Topic 842*, to permit an entity to elect a practical expedient to not re-evaluate land easements that existed or expired before the entity's adoption of ASU No. 2016-02, *Leases*, and that were not accounted for as leases. The ASU did not have a material impact on the consolidated financial statements.

Note 3 – Business Combinations

Maxwell Acquisition

On May 16, 2019 (the “Acquisition Date”), we completed our strategic acquisition of Maxwell Technologies, Inc. (“Maxwell”), an energy storage and power delivery products company, for its complementary technology and workforce. Pursuant to the related Agreement and Plan of Merger (the “Merger Agreement”), each issued and outstanding share of Maxwell common stock was converted into 0.0193 (the “Exchange Ratio”) shares of our common stock. In addition, Maxwell's stock option awards and restricted stock unit awards were assumed by us and converted into corresponding equity awards in respect of our common stock based on the Exchange Ratio, with the awards retaining the same vesting and other terms and conditions as in effect immediately prior to the acquisition.

Fair Value of Purchase Consideration

The Acquisition Date fair value of the purchase consideration was \$207 million (902,968 shares issued at \$229.49 per share, the opening price of our common stock on the Acquisition Date).

Fair Value of Assets Acquired and Liabilities Assumed

We accounted for the acquisition using the purchase method of accounting for business combinations under ASC 805, *Business Combinations*. The total purchase price is allocated to the tangible and identifiable intangible assets acquired and liabilities based on their estimated fair values as of the Acquisition Date.

Fair value estimates are based on a complex series of judgments about future events and uncertainties and rely heavily on estimates and assumptions. The judgments used to determine the estimated fair value assigned to each class of assets acquired and liabilities assumed, as well as asset lives and the expected future cash flows and related discount rates, can materially impact our consolidated financial statements. Significant inputs used for the model included the amount of cash flows, the expected period of the cash flows and the discount rates. In 2019, we finalized our estimate of the Acquisition Date fair values of the assets acquired and the liabilities assumed and there were no changes to the fair values of the assets acquired and the liabilities assumed.

The allocation of the purchase price is based on management's estimate of the Acquisition Date fair values of the assets acquired and liabilities assumed, as follows (in millions):

Assets acquired:	
Cash and cash equivalents	\$ 32
Accounts receivable	24
Inventory	32
Property, plant and equipment, net	27
Operating lease right-of-use assets	10
Intangible assets	105
Prepaid expenses and other assets, current and non-current	3
Total assets acquired	233
Liabilities and equity assumed:	
Accounts payable	(10)
Accrued liabilities and other	(28)
Debt and finance leases, current and non-current	(44)
Deferred revenue, current	(1)
Other long-term liabilities	(14)
Additional paid-in capital	(8)
Total liabilities and equity assumed	(105)
Net assets acquired	128
Goodwill	79
Total purchase price	\$ 207

Goodwill represented the excess of the purchase price over the fair value of the net assets acquired and was primarily attributable to the expected synergies from integrating Maxwell's technology into our automotive segment as well as the acquired talent. Goodwill is not deductible for U.S. income tax purposes and is not amortized.

Identifiable Intangible Assets Acquired

The determination of the fair value of identified intangible assets and their respective useful lives are as follows (in millions, except for estimated useful life):

	Fair Value	Useful Life (in years)
Developed technology	\$ 102	9
Customer relations	2	9
Trade name	1	10
Total intangible assets	\$ 105	

Maxwell's results of operations since the Acquisition Date have been included within the automotive segment. Standalone and pro forma results of operations have not been presented because they were not material to the consolidated financial statements.

Other Acquisitions

During the year ended December 31, 2019, we completed various other acquisitions generally for the related technology and workforce. Total consideration for these acquisitions was \$96 million, of which \$80 million was paid in cash. In aggregate, \$36 million was attributed to intangible assets, \$51 million was attributed to goodwill within the automotive segment, and \$9 million was attributed to net assets assumed. Goodwill is not deductible for U.S. income tax purposes. The identifiable intangible assets were related to purchased technology, with estimated useful lives of one to nine years.

Standalone and pro forma results of operations have not been presented because they were not material to the consolidated financial statements, either individually or in aggregate.

Note 4 – Goodwill and Intangible Assets

Goodwill increased \$130 million from \$68 million as of December 31, 2018 to \$198 million as of December 31, 2019 primarily due to completed business combinations during the year ended December 31, 2019 (see Note 3, *Business Combinations*). There were no accumulated impairment losses as of December 31, 2019 and 2018.

Information regarding our intangible assets including assets recognized from our acquisitions was as follows (in millions):

	December 31, 2019				December 31, 2018			
	Gross Carrying Amount	Accumulated Amortization	Other	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Other	Net Carrying Amount
Finite-lived intangible assets:								
Developed technology	\$ 291	\$ (72)	\$ 1	\$ 220	\$ 152	\$ (40)	\$ 1	\$ 113
Trade names	3	(1)	1	3	45	(44)	—	1
Favorable contracts and leases, net	113	(24)	—	89	113	(17)	—	96
Other	38	(16)	—	22	36	(12)	1	25
Total finite-lived intangible assets	445	(113)	2	334	346	(113)	2	235
Indefinite-lived intangible assets:								
Gigafactory Nevada water rights	5	—	—	5	—	—	—	—
In-process research and development (“IPR&D”)	60	—	(60)	—	60	—	(13)	47
Total indefinite-lived intangible assets	65	—	(60)	5	60	—	(13)	47
Total intangible assets	\$ 510	\$ (113)	\$ (58)	\$ 339	\$ 406	\$ (113)	\$ (11)	\$ 282

During 2019, the Company determined to abandon further development efforts on the IPR&D and therefore impaired the remaining \$47 million in restructuring and other expenses in the consolidated statement of operations. Amortization expense during the years ended December 31, 2019, 2018 and 2017 was \$44 million, \$66 million and \$40 million, respectively.

Total future amortization expense for finite-lived intangible assets was estimated as follows (in millions):

2020	\$	50
2021		49
2022		48
2023		42
2024		27
Thereafter		118
Total	\$	<u>334</u>

Note 5 – Fair Value of Financial Instruments

ASC 820, *Fair Value Measurements*, states that fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. The three-tiered fair value hierarchy, which prioritizes which inputs should be used in measuring fair value, is comprised of: (Level I) observable inputs such as quoted prices in active markets; (Level II) inputs other than quoted prices in active markets that are observable either directly or indirectly and (Level III) unobservable inputs for which there is little or no market data. The fair value hierarchy requires the use of observable market data when available in determining fair value. Our assets and liabilities that were measured at fair value on a recurring basis were as follows (in millions):

	December 31, 2019				December 31, 2018			
	Fair Value	Level I	Level II	Level III	Fair Value	Level I	Level II	Level III
Money market funds (cash and cash equivalents & restricted cash)	\$ 1,632	\$ 1,632	\$ —	\$ —	\$ 1,813	\$ 1,813	\$ —	\$ —
Interest rate swap asset	1	—	1	—	12	—	12	—
Interest rate swap liability	(27)	—	(27)	—	(1)	—	(1)	—
Total	<u>\$ 1,606</u>	<u>\$ 1,632</u>	<u>\$ (26)</u>	<u>\$ —</u>	<u>\$ 1,824</u>	<u>\$ 1,813</u>	<u>\$ 11</u>	<u>\$ —</u>

All of our money market funds were classified within Level I of the fair value hierarchy because they were valued using quoted prices in active markets. Our interest rate swaps were classified within Level II of the fair value hierarchy because they were valued using alternative pricing sources or models that utilized market observable inputs, including current and forward interest rates. During the year ended December 31, 2019, there were no transfers between the levels of the fair value hierarchy.

Interest Rate Swaps

We enter into fixed-for-floating interest rate swap agreements to swap variable interest payments on certain debt for fixed interest payments, as required by certain of our lenders. We do not designate our interest rate swaps as hedging instruments. Accordingly, our interest rate swaps are recorded at fair value on the consolidated balance sheets within other assets or other long-term liabilities, with any changes in their fair values recognized as other income (expense), net, in the consolidated statements of operations and with any cash flows recognized as investing activities in the consolidated statements of cash flows. Our interest rate swaps outstanding were as follows (in millions):

	December 31, 2019			December 31, 2018		
	Aggregate Notional Amount	Gross Asset at Fair Value	Gross Liability at Fair Value	Aggregate Notional Amount	Gross Asset at Fair Value	Gross Liability at Fair Value
Interest rate swaps	\$ 821	\$ 1	\$ 27	\$ 800	\$ 12	\$ 1

Our interest rate swaps activity was as follows (in millions):

	Year Ended December 31,		
	2019	2018	2017
Gross gains	\$ 11	\$ 22	\$ 7
Gross losses	\$ 51	\$ 12	\$ 13

Disclosure of Fair Values

Our financial instruments that are not re-measured at fair value include accounts receivable, MyPower customer notes receivable, rebates receivable, accounts payable, accrued liabilities, customer deposits, participation interest and debt. The carrying values of these financial instruments other than our 1.25% Convertible Senior Notes due in 2021, 2.375% Convertible Senior Notes due in 2022 and 2.00% Convertible Senior Notes due in 2024 and our subsidiary's Zero-Coupon Convertible Senior Notes due in 2020 (collectively referred to as "Convertible Senior Notes" below), 5.30% Senior Notes due in 2025, solar asset-backed notes and solar loan-backed notes approximate their fair values.

We estimate the fair value of the Convertible Senior Notes and the 5.30% Senior Notes due in 2025 using commonly accepted valuation methodologies and market-based risk measurements that are indirectly observable, such as credit risk (Level II). In addition, we estimate the fair values of our solar asset-backed notes and solar loan-backed notes based on rates currently offered for instruments with similar maturities and terms (Level III). The following table presents the estimated fair values and the carrying values (in millions):

	December 31, 2019		December 31, 2018	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Convertible Senior Notes	\$ 3,686	\$ 6,067	\$ 3,661	\$ 4,347
5.30% Senior Notes due in 2025	\$ 1,782	\$ 1,748	\$ 1,779	\$ 1,575
Solar asset-backed notes	\$ 1,155	\$ 1,211	\$ 1,183	\$ 1,207
Solar loan-backed notes	\$ 175	\$ 189	\$ 203	\$ 212

Note 6 – Inventory

Our inventory consisted of the following (in millions):

	December 31, 2019	December 31, 2018
Raw materials	\$ 1,428	\$ 932
Work in process	362	297
Finished goods (1)	1,356	1,581
Service parts	406	303
Total	\$ 3,552	\$ 3,113

(1) Finished goods inventory includes vehicles in transit to fulfill customer orders, new vehicles available for sale, used vehicles and energy storage products.

For solar energy systems, we commence transferring component parts from inventory to construction in progress, a component of solar energy systems, once a lease or PPA contract with a customer has been executed and installation has been initiated. Additional costs incurred on the leased solar energy systems, including labor and overhead, are recorded within construction in progress.

We write-down inventory for any excess or obsolete inventories or when we believe that the net realizable value of inventories is less than the carrying value. During the years ended December 31, 2019, 2018 and 2017, we recorded write-downs of \$138 million, \$78 million and \$124 million, respectively, in cost of revenues.

Note 7 – Solar Energy Systems, Net

Solar energy systems, net, consisted of the following (in millions):

	December 31, 2019	December 31, 2018
Solar energy systems in service	\$ 6,682	\$ 6,431
Initial direct costs related to customer solar energy system lease acquisition costs	102	99
	6,784	6,530
Less: accumulated depreciation and amortization (1)	(723)	(496)
	6,061	6,034
Solar energy systems under construction	18	68
Solar energy systems pending interconnection	59	169
Solar energy systems, net (2)	\$ 6,138	\$ 6,271

- (1) Depreciation and amortization expense during the years ended December 31, 2019, 2018 and 2017 was \$27 million, \$276 million, and \$213 million, respectively.
- (2) As of December 31, 2019 and 2018, solar energy systems, net, included \$6 million of gross finance leased assets with accumulated depreciation and amortization of \$6 million and \$4 million, respectively.

Note 8 – Property, Plant and Equipment, Net

Our property, plant and equipment, net, consisted of the following (in millions):

	December 31, 2019	December 31, 2018
Machinery, equipment, vehicles and office furniture	\$ 7,167	\$ 6,329
Tooling	1,493	1,398
Leasehold improvements	1,087	961
Land and buildings	3,024	4,047
Computer equipment, hardware and software	595	487
Construction in progress	764	807
	14,130	14,029
Less: Accumulated depreciation	(3,734)	(2,699)
Total	\$ 10,396	\$ 11,330

As of December 31, 2018, the table above included \$1.69 billion of gross build-to-suit lease assets. As a result of the adoption of the new lease standard on January 1, 2019, we have de-recognized all build-to-suit lease assets and have reassessed these leases to be operating lease right-of-use assets within the consolidated balance sheet as of December 31, 2019 (see Note 2, *Summary of Significant Accounting Policies*).

Construction in progress is primarily comprised of tooling and equipment related to the manufacturing of our products and Gigafactory Shanghai construction. Completed assets are transferred to their respective asset classes, and depreciation begins when an asset is ready for its intended use. Interest on outstanding debt is capitalized during periods of significant capital asset construction and amortized over the useful lives of the related assets. During the years ended December 31, 2019 and 2018, we capitalized \$31 million and \$55 million, respectively, of interest.

Depreciation expense during the years ended December 31, 2019, 2018 and 2017 was \$1.37 billion, \$1.11 billion and \$769 million, respectively. Gross property plant and equipment under finance leases as of December 31, 2019 and 2018 was \$2.08 billion and \$1.52 billion, respectively. Accumulated depreciation on property, plant and equipment under finance leases as of these dates was \$483 million and \$232 million, respectively.

Panasonic has partnered with us on Gigafactory Nevada with investments in the production equipment that it uses to manufacture and supply us with battery cells. Under our arrangement with Panasonic, we plan to purchase the full output from their production equipment at negotiated prices. As the terms of the arrangement convey a finance lease under ASC 842, *Leases*, we account for their production equipment as leased assets when production commences. This results in us recording the cost of their production equipment within property, plant and equipment, net, on the consolidated balance sheets with a corresponding liability recorded to debt and finance leases. As of December 31, 2019 and 2018, we had cumulatively capitalized costs of \$1.73 billion and \$1.24 billion, respectively, on the consolidated balance sheets in relation to the production equipment under our Panasonic arrangement. We had cumulatively capitalized total costs for Gigafactory Nevada, including costs under our Panasonic arrangement, of \$5.27 billion and \$4.62 billion as of December 31, 2019 and 2018, respectively.

In 2019, the Shanghai government agreed to provide \$85 million of certain incentives in connection with us making certain manufacturing equipment investments at Gigafactory Shanghai, of which \$46 million was received in cash and the remaining \$39 million was in the form of assets and services contributed by the government. These incentives were taken as a reduction to property, plant and equipment, net, on the consolidated balance sheet.

Note 9 – Accrued Liabilities and Other

As of December 31, 2019 and 2018, accrued liabilities and other current liabilities consisted of the following (in millions):

	December 31, 2019	December 31, 2018
Accrued purchases (1)	\$ 638	\$ 394
Payroll and related costs	466	449
Taxes payable (2)	611	348
Accrued interest	86	78
Financing obligation, current portion	57	62
Accrued warranty, current portion	344	201
Sales return reserve, current portion	272	108
Build-to-suit lease liability, current portion	—	82
Operating lease right-of-use liabilities, current portion	228	—
Other current liabilities	203	372
Total	\$ 2,905	\$ 2,094

- (1) Accrued purchases primarily reflects receipts of goods and services that we had not been invoiced yet. As we are invoiced for these goods and services, this balance will reduce and accounts payable will increase.
- (2) Taxes payable includes value added tax, sales tax, property tax, use tax and income tax payables.

Due to price adjustments we made to our vehicle offerings during 2019, we increased our sales return reserve significantly on vehicles previously sold under our buyback options program. See Note 2, *Summary of Significant Accounting Policies* for details.

As of December 31, 2018, the table above included \$82 million of current build-to-suit lease liabilities. As a result of the adoption of the new lease standard on January 1, 2019, we have de-recognized all build-to-suit lease liabilities and have reassessed these leases to be operating lease right-of-use liabilities as of December 31, 2019.

Note 10 – Other Long-Term Liabilities

As of December 31, 2019 and 2018, other long-term liabilities consisted of the following (in millions):

	December 31, 2019	December 31, 2018
Accrued warranty reserve	\$ 745	\$ 547
Build-to-suit lease liability	—	1,662
Operating lease right-of-use liabilities	956	—
Deferred rent expense	—	59
Financing obligation	37	50
Sales return reserve	545	84
Other noncurrent liabilities	372	308
Total other long-term liabilities	<u>\$ 2,655</u>	<u>\$ 2,710</u>

As of December 31, 2018, the table above included \$1.66 billion of non-current build-to-suit lease liabilities. As a result of the adoption of the new lease standard on January 1, 2019, we have de-recognized all build-to-suit lease liabilities and have reassessed these leases to be operating lease right-of-use liabilities as of December 31, 2019.

Due to price adjustments we made to our vehicle offerings during 2019, we increased our sales return reserve significantly on vehicles previously sold under our buyback options program. Refer to Note 2, *Summary of Significant Accounting Policies*, for details on these transactions.

Note 11 – Customer Deposits

Customer deposits primarily consisted of cash payments from customers at the time they place an order or reservation for a vehicle or an energy product and any additional payments up to the point of delivery or the completion of installation, including the fair values of any customer trade-in vehicles that are applicable toward a new vehicle purchase. Customer deposits also include prepayments on contracts that can be cancelled without significant penalties, such as vehicle maintenance plans. Customer deposit amounts and timing vary depending on the vehicle model, the energy product and the country of delivery. In the case of a vehicle, customer deposits are fully refundable. In the case of an energy generation or storage product, customer deposits are fully refundable prior to the entry into a purchase agreement or in certain cases for a limited time thereafter (in accordance with applicable laws). Customer deposits are included in current liabilities until refunded or until they are applied towards the customer's purchase balance. As of December 31, 2019 and December 31, 2018, we held \$726 million and \$793 million, respectively, in customer deposits.

Note 12 –Debt

The following is a summary of our debt as of December 31, 2019 (in millions):

	Unpaid Principal Balance	Net Carrying Value		Unused Committed Amount (1)	Contractual Interest Rates	Contractual Maturity Date
		Current	Long-Term			
Recourse debt:						
1.25% Convertible Senior Notes due in 2021 ("2021 Notes")	\$ 1,380	\$ —	\$ 1,304	\$ —	1.25 %	March 2021
2.375% Convertible Senior Notes due in 2022 ("2022 Notes")	978	—	902	—	2.375%	March 2022
2.00% Convertible Senior Notes due in 2024 ("2024 Notes")	1,840	—	1,383	—	2.00 %	May 2024
5.30% Senior Notes due in 2025 ("2025 Notes")	1,800	—	1,782	—	5.30 %	August 2025
Credit Agreement	1,727	141	1,586	499	2.7%-4.8%	June 2020-July 2023
Zero-Coupon Convertible Senior Notes due in 2020	103	97	—	—	0.0%	December 2020
Solar Bonds and other Loans	70	15	53	—	3.6%-5.8%	March 2020-January 2031
Total recourse debt	7,898	253	7,010	499		
Non-recourse debt:						
Automotive Asset-backed Notes	1,577	573	997	—	2.0%-7.9%	February 2020- May 2023
Solar Asset-backed Notes	1,183	32	1,123	—	4.0%-7.7%	September 2024-February 2048
China Loan Agreements	741	444	297	1,542	3.7%-4.0%	September 2020-December 2024
Cash Equity Debt	454	10	430	—	5.3%-5.8%	July 2033-January 2035
Solar Loan-backed Notes	182	11	164	—	4.8%-7.5%	September 2048-September 2049
Warehouse Agreements	167	21	146	933	3.1%-3.6%	September 2021
Solar Term Loans	161	8	152	—	5.4%	January 2021
Canada Credit Facility	40	24	16	—	4.2%-5.9%	November 2022
Solar Renewable Energy Credit and other Loans	89	23	67	6	4.5%-7.4%	March 2020-June 2022
Total non-recourse debt	4,594	1,146	3,392	2,481		
Total debt	\$ 12,492	\$ 1,399	\$ 10,402	\$ 2,980		

The following is a summary of our debt as of December 31, 2018 (in millions):

	Unpaid Principal Balance	Net Carrying Value		Unused Committed Amount (1)	Contractual Interest Rates	Contractual Maturity Date
		Current	Long-Term			
Recourse debt:						
0.25% Convertible Senior Notes due in 2019 ("2019 Notes")	\$ 920	\$ 913	\$ —	\$ —	0.25%	March 2019
2021 Notes	1,380	—	1,244	—	1.25%	March 2021
2022 Notes	978	—	871	—	2.375%	March 2022
2025 Notes	1,800	—	1,779	—	5.30%	August 2025
Credit Agreement	1,540	—	1,540	231	1% plus LIBOR	June 2020
1.625% Convertible Senior Notes due in 2019	566	541	—	—	1.625%	November 2019
Zero-Coupon Convertible Senior Notes due in 2020	103	—	92	—	0.0%	December 2020
Vehicle, Solar Bonds and other Loans	101	1	100	—	1.8%-7.6%	January 2019-January 2031
Total recourse debt	7,388	1,455	5,626	231		
Non-recourse debt:						
Solar Asset-backed Notes	1,214	28	1,155	—	4.0%-7.7%	September 2024-February 2048
Automotive Asset-backed Notes	1,178	468	704	—	2.3%-7.9%	December 2019-June 2022
Cash Equity Debt	467	11	442	—	5.3%-5.8%	July 2033-January 2035
Solar Term Loans	350	188	162	—	6.0%-6.1%	January 2019-January 2021
Solar Loan-backed Notes	210	10	193	—	4.8%-7.5%	September 2048-September 2049
Warehouse Agreements	92	14	78	1,008	3.9%-4.2%	September 2020
Canada Credit Facility	73	32	41	—	3.6%-5.9%	November 2022
Solar Renewable Energy Credit and other Loans	27	16	10	18	5.1%-7.9%	December 2019-July 2021
Total non-recourse debt	3,611	767	2,785	1,026		
Total debt	<u>\$ 10,999</u>	<u>\$ 2,222</u>	<u>\$ 8,411</u>	<u>\$ 1,257</u>		

- (1) Unused committed amounts under some of our credit facilities and financing funds are subject to satisfying specified conditions prior to draw-down (such as pledging to our lenders sufficient amounts of qualified receivables, inventories, leased vehicles and our interests in those leases, solar energy systems and the associated customer contracts, our interests in financing funds or various other assets). Upon draw-down of any unused committed amounts, there are no restrictions on use of available funds for general corporate purposes.

Recourse debt refers to debt that is recourse to our general assets. Non-recourse debt refers to debt that is recourse to only assets of our subsidiaries. The differences between the unpaid principal balances and the net carrying values are due to convertible senior note conversion features, debt discounts or deferred financing costs. As of December 31, 2019, we were in material compliance with all financial debt covenants, which include minimum liquidity and expense-coverage balances and ratios.

2019 Notes, 2021 Notes, Bond Hedges and Warrant Transactions

In March 2014, we issued \$800 million in aggregate principal amount of 0.25% Convertible Senior Notes due in March 2019 and \$1.20 billion in aggregate principal amount of 1.25% Convertible Senior Notes due in March 2021 in a public offering. In April 2014, we issued an additional \$20 million in aggregate principal amount of the 2019 Notes and \$180 million in aggregate principal amount of the 2021 Notes, pursuant to the exercise in full of the overallotment options by the underwriters. The total net proceeds from the issuances, after deducting transaction costs, were \$906 million for the 2019 Notes and \$1.36 billion for the 2021 Notes.

Each \$1,000 of principal of these notes is initially convertible into 2.7788 shares of our common stock, which is equivalent to an initial conversion price of \$359.87 per share, subject to adjustment upon the occurrence of specified events. Holders of these notes had the option to convert on or after December 1, 2018 for the 2019 Notes and may elect to convert on or after December 1, 2020 for the 2021 Notes. The settlement of such an election to convert the 2019 Notes was in cash and/or shares of our common stock, which we settled in cash on the maturity date. The settlement of such an election to convert the 2021 Notes would be in cash for the principal amount and, if applicable, cash and/or shares of our common stock for any conversion premium at our election. Further, holders of these notes may convert, at their option, prior to the respective dates above only under the following circumstances: (1) during a quarter in which the closing price of our common stock for at least 20 trading days (whether or not consecutive) during the last 30 consecutive trading days immediately preceding the quarter is greater than or equal to 130% of the conversion price; (2) during the five-business day period following any five-consecutive trading day period in which the trading price of these notes is less than 98% of the product of the closing price of our common stock and the applicable conversion rate for each day during such five-consecutive trading day period, or (3) if we make specified distributions to holders of our common stock or if specified corporate transactions occur. Upon such a conversion of the 2019 Notes, we would pay or deliver (as applicable) cash, shares of our common stock or a combination thereof, at our election. Upon such a conversion of the 2021 Notes, we would pay cash for the principal amount and, if applicable, deliver shares of our common stock (subject to our right to deliver cash in lieu of all or a portion of such shares of our common stock) based on a daily conversion value. If a fundamental change occurs prior to the applicable maturity date, holders of these notes may require us to repurchase all or a portion of their notes for cash at a repurchase price equal to 100% of the principal amount plus any accrued and unpaid interest. In addition, if specific corporate events occur prior to the applicable maturity date, we would increase the conversion rate for a holder who elects to convert their notes in connection with such an event in certain circumstances. As of December 31, 2019, none of the conditions permitting the holders of 2021 to early convert had been met. Therefore, the 2021 Notes are classified as long-term.

In accordance with GAAP relating to embedded conversion features, we initially valued and bifurcated the conversion features associated with these notes. We recorded to stockholders' equity \$188 million for the 2019 Notes' conversion feature and \$369 million for the 2021 Notes' conversion feature. The resulting debt discounts are being amortized to interest expense at an effective interest rate of 4.89% and 5.96%, respectively.

In connection with the offering of these notes in March and April 2014, we entered into convertible note hedge transactions whereby we had the option to purchase 2.6 million shares of our common stock for the 2019 Notes and have the option to purchase initially (subject to adjustment for certain specified events) 3.8 million shares of our common stock for the 2021 Notes at a price of \$59.87 per share. The total cost of the convertible note hedge transactions was \$604 million. In addition, we sold warrants whereby the holders of the warrants had the option to purchase 2.6 million shares of our common stock at a price of \$512.66 per share for the 2019 Notes and have the option to purchase initially (subject to adjustment for certain specified events) 3.8 million shares of our common stock at a price of \$560.64 per share for the 2021 Notes. We received \$389 million in total cash proceeds from the sales of these warrants. Taken together, the purchases of the convertible note hedges and the sales of the warrants are intended to reduce potential dilution and/or cash payments from the conversion of these notes and to effectively increase the overall conversion price from \$359.87 to \$512.66 per share for the 2019 Notes and from \$359.87 to \$560.64 per share for the 2021 Notes. As these transactions meet certain accounting criteria, the convertible note hedges and warrants are recorded in stockholders' equity and are not accounted for as derivatives. The net cost incurred in connection with the convertible note hedge and warrant transactions was recorded as a reduction to additional paid-in capital on the consolidated balance sheet.

During the first quarter of 2019, we repaid the \$920 million in aggregate principal amount of the 2019 Notes. As of December 31, 2019, the convertible note hedges and warrants associated with the 2019 Notes have expired.

As of December 31, 2019, the if-converted value of the 2021 Notes exceeds the outstanding principal amount by \$24 million.

2022 Notes, Bond Hedges and Warrant Transactions

In March 2017, we issued \$978 million in aggregate principal amount of 2.375% Convertible Senior Notes due in March 2022 in a public offering. The net proceeds from the issuance, after deducting transaction costs, were \$966 million.

Each \$1,000 of principal of the 2022 Notes is initially convertible into 3.0534 shares of our common stock, which is equivalent to an initial conversion price of \$327.50 per share, subject to adjustment upon the occurrence of specified events. Holders of the 2022 Notes may convert, at their option, on or after December 15, 2021. Further, holders of the 2022 Notes may convert, at their option, prior to December 15, 2021 only under the following circumstances: (1) during any quarter beginning after June 30, 2017, if the closing price of our common stock for at least 20 trading days (whether or not consecutive) during the last 30 consecutive trading days immediately preceding the quarter is greater than or equal to 130% of the conversion price; (2) during the five-business day period following any five-consecutive trading day period in which the trading price of the 2022 Notes is less than 98% of the product of the closing price of our common stock and the applicable conversion rate for each day during such five-consecutive trading day period or (3) if we make specified distributions to holders of our common stock or if specified corporate transactions occur. Upon a conversion, we would pay cash for the principal amount and, if applicable, deliver shares of our common stock (subject to our right to deliver cash in lieu of all or a portion of such shares of our common stock) based on a daily conversion value. If a fundamental change occurs prior to the maturity date, holders of the 2022 Notes may require us to repurchase all or a portion of their 2022 Notes for cash at a repurchase price equal to 100% of the principal amount plus any accrued and unpaid interest. In addition, if specific corporate events occur prior to the maturity date, we would increase the conversion rate for a holder who elects to convert its 2022 Notes in connection with such an event in certain circumstances. As of December 31, 2019, none of the conditions permitting the holders of the 2022 Notes to early convert had been met. Therefore, the 2022 Notes are classified as long-term.

In accordance with GAAP relating to embedded conversion features, we initially valued and bifurcated the conversion feature associated with the 2022 Notes. We recorded to stockholders' equity \$146 million for the conversion feature. The resulting debt discount is being amortized to interest expense at an effective interest rate of 6.00%.

In connection with the offering of the 2022 Notes, we entered into convertible note hedge transactions whereby we have the option to purchase initially (subject to adjustment for certain specified events) 3.0 million shares of our common stock at a price of \$27.50 per share. The cost of the convertible note hedge transactions was \$204 million. In addition, we sold warrants whereby the holders of the warrants have the option to purchase initially (subject to adjustment for certain specified events) 3.0 million shares of our common stock at a price of \$655.00 per share. We received \$53 million in cash proceeds from the sale of these warrants. Taken together, the purchase of the convertible note hedges and the sale of the warrants are intended to reduce potential dilution from the conversion of the 2022 Notes and to effectively increase the overall conversion price from \$327.50 to \$655.00 per share. As these transactions meet certain accounting criteria, the convertible note hedges and warrants are recorded in stockholders' equity and are not accounted for as derivatives. The net cost incurred in connection with the convertible note hedge and warrant transactions was recorded as a reduction to additional paid-in capital on the consolidated balance sheet.

As of December 31, 2019, the if-converted value of the notes exceeds the outstanding principal amount by \$71 million.

2024 Notes, Bond Hedges and Warrant Transactions

In May 2019, we issued \$1.84 billion in aggregate principal amount of 2.00% Convertible Senior Notes due in May 2024 in a public offering. The net proceeds from the issuance, after deducting transaction costs, were \$1.82 billion.

Each \$1,000 of principal of the 2024 Notes is initially convertible into 3.2276 shares of our common stock, which is equivalent to an initial conversion price of \$309.83 per share, subject to adjustment upon the occurrence of specified events. Holders of the 2024 Notes may convert, at their option, on or after February 15, 2024. Further, holders of the 2024 Notes may convert, at their option, prior to February 15, 2024 only under the following circumstances: (1) during any calendar quarter commencing after September 30, 2019 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each trading day; (2) during the five-business day period after any five-consecutive trading day period in which the trading price per \$1,000 principal amount of the 2024 Notes for each trading day of such period is less than 98% of the product of the last reported sale price of our common stock and the conversion rate on each such trading day, or (3) if specified corporate events occur. Upon conversion, the 2024 Notes will be settled in cash, shares of our common stock or a combination thereof, at our election. If a fundamental change occurs prior to the maturity date, holders of the 2024 Notes may require us to repurchase all or a portion of their 2024 Notes for cash at a repurchase price equal to 100% of the principal amount plus any accrued and unpaid interest. In addition, if specific corporate events occur prior to the maturity date, we would increase the conversion rate for a holder who elects to convert its 2024 Notes in connection with such an event in certain circumstances. As of December 31, 2019, none of the conditions permitting the holders of the 2024 Notes to early convert had been met. Therefore, the 2024 Notes are classified as long-term.

In accordance with GAAP relating to embedded conversion features, we initially valued and bifurcated the conversion feature associated with the 2024 Notes. We recorded to stockholders' equity \$491 million for the conversion feature. The resulting debt discount is being amortized to interest expense at an effective interest rate of 8.68%.

In connection with the offering of the 2024 Notes, we entered into convertible note hedge transactions whereby we have the option to purchase initially (subject to adjustment for certain specified events) 5.9 million shares of our common stock at a price of \$309.83 per share. The cost of the convertible note hedge transactions was \$476 million. In addition, we sold warrants whereby the holders of the warrants have the option to purchase initially (subject to adjustment for certain specified events) 5.9 million shares of our common stock at a price of \$607.50 per share. We received \$174 million in cash proceeds from the sale of these warrants. Taken together, the purchase of the convertible note hedges and the sale of the warrants are intended to reduce potential dilution from the conversion of the 2024 Notes and to effectively increase the overall conversion price from \$309.83 to \$607.50 per share. As these transactions meet certain accounting criteria, the convertible note hedges and warrants are recorded in stockholders' equity and are not accounted for as derivatives. The net cost incurred in connection with the convertible note hedge and warrant transactions was recorded as a reduction to additional paid-in capital on the consolidated balance sheet.

As of December 31, 2019, the if-converted value of the notes exceeds the outstanding principal amount by \$44 million.

2025 Notes

In August 2017, we issued \$1.80 billion in aggregate principal amount of unsecured 5.30% Senior Notes due in August 2025 pursuant to Rule 144A and Regulation S under the Securities Act. The net proceeds from the issuance, after deducting transaction costs, were \$1.77 billion.

Credit Agreement

In June 2015, we entered into a senior asset-based revolving credit agreement (as amended from time to time, the "Credit Agreement") with a syndicate of banks. Borrowed funds bear interest, at our option, at an annual rate of (a) 1% plus LIBOR or (b) the highest of (i) the federal funds rate plus 0.50%, (ii) the lenders' "prime rate" or (iii) 1% plus LIBOR. The fee for undrawn amounts is 0.25% per annum. The Credit Agreement is secured by certain of our accounts receivable, inventory and equipment. Availability under the Credit Agreement is based on the value of such assets, as reduced by certain reserves.

In March 2019, we amended and restated the Credit Agreement to increase the total lender commitments by \$500 million to \$2.425 billion and extend the term of substantially all of the total commitments to July 2023.

1.625% Convertible Senior Notes due in 2019

In 2014, SolarCity issued \$566 million in aggregate principal amount of 1.625% Convertible Senior Notes due on November 1, 2019 in a private placement.

Each \$1,000 of principal of the convertible senior notes was convertible into 1.3169 shares of our common stock, which is equivalent to a conversion price of \$759.36 per share (subject to adjustment upon the occurrence of specified events related to dividends, tender offers or exchange offers). The maximum conversion rate was capped at 1.7449 shares for each \$1,000 of principal of the convertible senior notes, which is equivalent to a minimum conversion price of \$573.10 per share. The convertible senior notes did not have a cash conversion option and the convertible senior note holders could require us to repurchase their convertible senior notes for cash only under certain defined fundamental changes.

In November 2019, we fully repaid \$566 million in aggregate principal amount of the Notes.

Zero-Coupon Convertible Senior Notes due in 2020

In December 2015, SolarCity issued \$113 million in aggregate principal amount of Zero-Coupon Convertible Senior Notes due on December 1, 2020 in a private placement. \$13 million of the convertible senior notes were issued to related parties (see Note 20, *Related Party Transactions*).

Each \$1,000 of principal of the convertible senior notes is now convertible into 3.3333 shares of our common stock, which is equivalent to a conversion price of \$300.00 per share (subject to adjustment upon the occurrence of specified events related to dividends, tender offers or exchange offers). The maximum conversion rate is capped at 4.2308 shares for each \$1,000 of principal of the convertible senior notes, which is equivalent to a minimum conversion price of \$236.36 per share. The convertible senior notes do not have a cash conversion option. The convertible senior note holders may require us to repurchase their convertible senior notes for cash only under certain defined fundamental changes. On or after June 30, 2017, the convertible senior notes are redeemable by us in the event that the closing price of our common stock exceeds 200% of the conversion price for 45 consecutive trading days ending within three trading days of such redemption notice at a redemption price equal to 100% of the principal amount plus any accrued and unpaid interest.

As of December 31, 2019, the if-converted value of the notes exceeds the outstanding principal amount by \$1 million.

Solar Bonds and other Loans

Solar Bonds are senior unsecured obligations that are structurally subordinate to the indebtedness and other liabilities of our subsidiaries. Solar Bonds were issued under multiple series with various terms and interest rates. Additionally, we have assumed the 5.50% Convertible Senior Notes due in 2022 issued by Maxwell, which are convertible into shares of our common stock as a result of our acquisition of Maxwell.

Automotive Asset-backed Notes

From time to time, we transfer receivables or beneficial interests related to certain leased vehicles into SPEs and issue Automotive Asset-backed Notes, backed by these automotive assets to investors. The SPEs are consolidated in the financial statements. The cash flows generated by these automotive assets are used to service the principal and interest payments on the Automotive Asset-backed Notes and satisfy the SPEs' expenses, and any remaining cash is distributed to the owners of the SPEs. We recognize revenue earned from the associated customer lease contracts in accordance with our revenue recognition policy. The SPEs' assets and cash flows are not available to our other creditors, and the creditors of the SPEs, including the Automotive Asset-backed Note holders, have no recourse to our other assets. A third-party contracted with us to provide administrative and collection services for these automotive assets.

In November 2019, we issued \$861 million in aggregate principal amount of Automotive Asset-backed Notes. The proceeds from the issuance, net of discounts and fees, were \$857 million.

Solar Asset-backed Notes

From time to time, our subsidiaries pool and transfer either qualifying solar energy systems and the associated customer contracts or our interests in certain financing funds into Special Purpose Entities (“SPEs”) and issue Solar Asset-backed Notes backed by these solar assets or interests to investors. The SPEs are wholly owned by us and are consolidated in the financial statements. The cash flows generated by these solar assets or distributed by the underlying financing funds to certain SPEs are used to service the principal and interest payments on the Solar Asset-backed Notes and satisfy the SPEs’ expenses, and any remaining cash is distributed to us. We recognize revenue earned from the associated customer contracts in accordance with our revenue recognition policy. The SPEs’ assets and cash flows are not available to our other creditors, and the creditors of the SPEs, including the Solar Asset-backed Note holders, have no recourse to our other assets. We contracted with the SPEs to provide operations & maintenance and administrative services for the solar energy systems. As of December 31, 2019, solar assets pledged as collateral for Solar Asset-backed Notes had a carrying value of \$690 million and are included within solar energy systems, net, on the consolidated balance sheets.

China Loan Agreements

In March 2019, one of our subsidiaries entered into a loan agreement with a syndicate of lenders in China for a bridge loan to be used for expenditures related to the construction of and production at our Gigafactory Shanghai. The loan agreement was terminated in December 2019.

In September 2019, one of our subsidiaries entered into a loan agreement with a lender in China for an unsecured 12-month revolving facility of up to RMB 5.0 billion (or the equivalent drawn in U.S. dollars), to finance vehicles in-transit to China. Borrowed funds bear interest at an annual rate no greater than 90% of the one-year rate published by the People’s Bank of China. The loan facility is non-recourse to our assets.

In December 2019, one of our subsidiaries entered into loan agreements with a syndicate of lenders in China for: (i) a secured term loan facility of up to RMB 9.0 billion or the equivalent amount drawn in U.S. dollars (the “Fixed Asset Facility”) and (ii) an unsecured revolving loan facility of up to RMB2.25 billion or the equivalent amount drawn in U.S. dollars (the “Working Capital Facility”), in each case to be used in connection with our construction of and production at our Gigafactory Shanghai. Outstanding borrowings pursuant to the Fixed Asset Facility accrue interest at a rate equal to: (i) for RMB-denominated loans, the market quoted interest rate published by the People’s Bank of China minus 0.7625%, and (ii) for U.S. dollar-denominated loans, the sum of one-year LIBOR plus 1.3%. Outstanding borrowings pursuant to the Working Capital Facility accrue interest at a rate equal to: (i) for RMB-denominated loans, the market quoted interest rate published by the People’s Bank of China minus 0.4525%, and (ii) for U.S. dollar-denominated loans, the sum of one-year LIBOR plus 0.8%. The Fixed Asset Facility is secured by the land and buildings at Gigafactory Shanghai and both facilities are non-recourse to our other assets.

Cash Equity Debt

In connection with the cash equity financing deals closed in 2016, our subsidiaries issued \$02 million in aggregate principal amount of debt that bears interest at fixed rates. This debt is secured by, among other things, our interests in certain financing funds and is non-recourse to our other assets.

Solar Loan-backed Notes

In January 2016 and January 2017, our subsidiaries pooled and transferred certain MyPower customer notes receivable into two SPEs and issued \$330 million in aggregate principal amount of Solar Loan-backed Notes, backed by these notes receivable to investors. Accordingly, we did not recognize a gain or loss on the transfer of these notes receivable. The SPEs are wholly owned by us and are consolidated in the financial statements. The payments received by the SPEs from these notes receivable are used to service the semi-annual principal and interest payments on the Solar Loan-backed Notes and satisfy the SPEs’ expenses, and any remaining cash is distributed to us. The SPEs’ assets and cash flows are not available to our other creditors, and the creditors of the SPEs, including the Solar Loan-backed Note holders, have no recourse to our other assets.

Warehouse Agreements

In August 2016, our subsidiaries entered into a loan and security agreement (the “2016 Warehouse Agreement”) for borrowings secured by the future cash flows arising from certain leases and the associated leased vehicles. On August 17, 2017, the 2016 Warehouse Agreement was amended to modify the interest rates and extend the availability period and the maturity date, and our subsidiaries entered into another loan and security agreement (the “2017 Warehouse Agreement”) with substantially the same terms as and that shares the same committed amount with the 2016 Warehouse Agreement. On August 16, 2018, the 2016 Warehouse Agreement and 2017 Warehouse Agreement were amended to extend the availability period from August 17, 2018 to August 16, 2019 and extend the maturity date from September 2019 to September 2020. On December 28, 2018, our subsidiaries terminated the 2017 Warehouse Agreement after having fully repaid all obligations thereunder, and entered into a third loan and security agreement with substantially the same terms as and that shares the same committed amount with the 2016 Warehouse Agreement. We refer to these agreements together as the “Warehouse Agreements.” Amounts drawn under the Warehouse Agreements generally bear interest at a fixed margin above (i) LIBOR or (ii) the commercial paper rate. The Warehouse Agreements are non-recourse to our other assets.

Pursuant to the Warehouse Agreements, an undivided beneficial interest in the future cash flows arising from certain leases and the related leased vehicles has been sold for legal purposes but continues to be reported in the consolidated financial statements. The interest in the future cash flows arising from these leases and the related vehicles is not available to pay the claims of our creditors other than pursuant to obligations to the lenders under the Warehouse Agreements. Any excess cash flows not required to pay obligations under the Warehouse Agreements are available for distributions.

In August 2019, our subsidiaries amended the Warehouse Agreements to extend the availability period from August 16, 2019 to August 14, 2020 and extend the maturity date from September 2020 to September 2021.

In November 2019, we repaid \$723 million of the principal outstanding under the Warehouse Agreements.

Solar Term Loans

Our subsidiaries have entered into agreements for term loans with various financial institutions. The term loans are secured by substantially all of the assets of the subsidiaries, including its interests in certain financing funds, and are non-recourse to our other assets.

During the fourth quarter of 2019, we fully repaid the \$159 million in aggregate principal of one term loan.

Canada Credit Facility

In December 2016, one of our subsidiaries entered into a credit agreement (the “Canada Credit Facility”) with a bank for borrowings secured by our interests in certain vehicle leases. In December 2017 and December 2018, the Canada Credit Facility was amended to add our interests in additional vehicle leases as collateral, allowing us to draw additional funds. Amounts drawn under the Canada Credit Facility bear interest at fixed rates. The Canada Credit Facility is non-recourse to our other assets.

Solar Renewable Energy Credit and other Loans

We have entered into various solar renewable energy credit and other loan agreements with various financial institutions, including a solar revolving credit facility. The solar renewable energy credit loan facility is secured by substantially all of the assets of one of our wholly owned subsidiaries, including its rights under forward contracts to sell SRECs, and is non-recourse to our other assets. The solar revolving credit facility is secured by certain assets of the subsidiary and is non-recourse to our other assets.

Interest Expense

The following table presents the interest expense related to the contractual interest coupon, the amortization of debt issuance costs and the amortization of debt discounts on our convertible senior notes with cash conversion features, which include the 1.50% Convertible Senior Notes due in 2018, the 2019 Notes, the 2021 Notes, the 2022 Notes and the 2024 Notes (in millions):

	Year Ended December 31,		
	2019	2018	2017
Contractual interest coupon	\$ 65	\$ 43	\$ 39
Amortization of debt issuance costs	7	7	7
Amortization of debt discounts	148	123	114
Total	<u>\$ 220</u>	<u>\$ 173</u>	<u>\$ 160</u>

Pledged Assets

As of December 31, 2019 and 2018, we had pledged or restricted \$5.72 billion and \$5.23 billion of our assets (consisted principally of restricted cash, receivables, inventory, SRECs, solar energy systems, operating lease vehicles, land use rights, property and equipment, and equity interests in certain SPEs) as collateral for our outstanding debt.

Schedule of Principal Maturities of Debt

The future scheduled principal maturities of debt as of December 31, 2019 were as follows (in millions):

	Recourse debt	Non-recourse debt	Total
2020	\$ 259	\$ 1,155	\$ 1,414
2021	1,382	909	2,291
2022	1,024	1,013	2,037
2023	1,586	199	1,785
2024	1,840	558	2,398
Thereafter	1,807	760	2,567
Total	<u>\$ 7,898</u>	<u>\$ 4,594</u>	<u>\$ 12,492</u>

Note 13 – Leases

We have entered into various non-cancellable operating and finance lease agreements for certain of our offices, manufacturing and warehouse facilities, retail and service locations, equipment, vehicles, and solar energy systems, worldwide. We determine if an arrangement is a lease, or contains a lease, at inception and record the leases in our financial statements upon lease commencement, which is the date when the underlying asset is made available for use by the lessor.

Our leases, where we are the lessee, often include options to extend the lease term for up to 10 years. Some of our leases also include options to terminate the lease prior to the end of the agreed upon lease term. For purposes of calculating lease liabilities, lease terms include options to extend or terminate the lease when it is reasonably certain that we will exercise such options.

Lease expense for operating lease payments is recognized on a straight-line basis over the lease term. Certain operating leases provide for annual increases to lease payments based on an index or rate. We calculate the present value of future lease payments based on the index or rate at the lease commencement date for new leases commencing after January 1, 2019. For historical leases, we used the index or rate as of the adoption date. Differences between the calculated lease payment and actual payment are expensed as incurred. Lease expense for finance lease payments is recognized as amortization expense of the finance lease ROU asset and interest expense on the finance lease liability over the lease term.

The balances for the operating and finance leases where we are the lessee are presented as follows (in millions) within our consolidated balance sheet:

	December 31, 2019
Operating leases:	
Operating lease right-of-use assets	\$ 1,218
Accrued liabilities and other	\$ 228
Other long-term liabilities	956
Total operating lease liabilities	<u>\$ 1,184</u>
Finance leases:	
Solar energy systems, net	\$ 30
Property, plant and equipment, net	1,600
Total finance lease assets	<u>\$ 1,630</u>
Current portion of long-term debt and finance leases	\$ 386
Long-term debt and finance leases, net of current portion	1,232
Total finance lease liabilities	<u>\$ 1,618</u>

The components of lease expense are as follows (in millions) within our consolidated statements of operations:

	Year Ended December 31, 2019
Operating lease expense:	
Operating lease expense (1)	\$ 426
Finance lease expense:	
Amortization of leased assets	\$ 299
Interest on lease liabilities	104
Total finance lease expense	<u>\$ 403</u>
Total lease expense	<u>\$ 829</u>

(1) Includes short-term leases and variable lease costs, which are immaterial.

Other information related to leases where we are the lessee is as follows:

	December 31, 2019
Weighted-average remaining lease term:	
Operating leases	6.2 years
Finance leases	3.9 years
Weighted-average discount rate:	
Operating leases	6.5%
Finance leases	6.5%

Because most of our leases do not provide an implicit rate of return, we used our incremental borrowing rate based on the information available at lease commencement date in determining the present value of lease payments.

Supplemental cash flow information related to leases where we are the lessee is as follows(in millions):

	Year Ended	
	December 31, 2019	
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash outflows from operating leases	\$	396
Operating cash outflows from finance leases (interest payments)	\$	104
Financing cash outflows from finance leases	\$	321
Leased assets obtained in exchange for finance lease liabilities	\$	616
Leased assets obtained in exchange for operating lease liabilities	\$	202

As of December 31, 2019, the maturities of our operating and finance lease liabilities (excluding short-term leases) are as follows(in millions):

	Operating Leases	Finance Leases
2020	\$ 296	\$ 474
2021	262	478
2022	210	600
2023	174	224
2024	146	5
Thereafter	372	13
Total minimum lease payments	1,460	1,794
Less: Interest	276	176
Present value of lease obligations	1,184	1,618
Less: Current portion	228	386
Long-term portion of lease obligations	\$ 956	\$ 1,232

Under legacy lease accounting (ASC 840), future minimum lease payments under non-cancellable leases as of December 31, 2018 are as follows (in millions):

	Operating Leases	Finance Leases
2019	\$ 276	\$ 417
2020	257	503
2021	230	506
2022	183	24
2023	158	5
Thereafter	524	6
Total minimum lease payments	\$ 1,628	1,461
Less: Interest		122
Present value of lease obligations		1,339
Less: Current portion		346
Long-term portion of lease obligations		\$ 993

Non-cancellable Operating Lease Receivables

Under the new lease standard, we are the lessor of certain vehicle arrangements as described in Note 2, *Summary of Significant Accounting Policies*. Following the adoption of the new lease standard, solar energy system leases and PPAs that commenced after January 1, 2019, where we are the lessor and were previously accounted for as leases, no longer meet the definition of a lease and are therefore not included in the table as of December 31, 2019 (refer to Note 2, *Summary of Significant Accounting Policies*). As of December 31, 2019, maturities of our operating lease receivables from customers for each of the next five years and thereafter were as follows (in millions):

2020	\$	644
2021		494
2022		317
2023		190
2024		191
Thereafter		2,294
Total	\$	<u>4,130</u>

Under legacy lease accounting (ASC 840), future minimum lease payments to be received from customers under non-cancellable leases as of December 31, 2018 are as follows (in millions):

2019	\$	502
2020		418
2021		271
2022		187
2023		189
Thereafter		2,469
Total	\$	<u>4,036</u>

The above tables do not include vehicle sales to customers or leasing partners with a resale value guarantee as the cash payments were received upfront. For our solar PPA arrangements, customers are charged solely based on actual power produced by the installed solar energy system at a predefined rate per kilowatt-hour of power produced. The future payments from such arrangements are not included in the above table as they are a function of the power generated by the related solar energy systems in the future.

Note 14 – Equity Incentive Plans

In June 2019, we adopted the 2019 Equity Incentive Plan (the “2019 Plan”), and simultaneously terminated the 2010 Equity Incentive Plan (the “2010 Plan”). No new awards have been granted under the 2010 Plan following the adoption of the 2019 Plan, but such termination did not affect outstanding awards under the 2010 Plan. The 2019 Plan has similar terms as the 2010 Plan and provides for the granting of stock options, restricted stock, RSUs, stock appreciation rights, performance units and performance shares to our employees, directors and consultants. Stock options granted under the 2019 Plan may be either incentive stock options or nonstatutory stock options. Incentive stock options may only be granted to our employees. Nonstatutory stock options may be granted to our employees, directors and consultants. Generally, our stock options and RSUs vest over four years and our stock options are exercisable over a maximum period of 10 years from their grant dates. Vesting typically terminates when the employment or consulting relationship ends.

As of December 31, 2019, 11 million shares were reserved and available for issuance under the 2019 Plan.

The following table summarizes our stock option and RSU activity:

	Stock Options				RSUs	
	Number of	Weighted-	Weighted-	Aggregate	Number	Weighted-
	Options	Average	Average	Intrinsic	of RSUs	Average
	(in thousands)	Exercise	Remaining	Value	(in thousands)	Grant
		Price	Contractual	(in billions)		Date Fair
			Life (years)			Value
Balance, December 31, 2018	31,208	\$ 273.40			4,659	\$ 294.63
Granted	1,473	\$ 265.26			3,752	\$ 282.74
Exercised or released	(1,441)	\$ 106.68			(1,949)	\$ 277.13
Cancelled	(1,245)	\$ 310.57			(1,656)	\$ 295.05
Balance, December 31, 2019	29,995	\$ 279.49	6.89	\$ 4.17	4,806	\$ 291.06
Vested and expected to vest, December 31, 2019	15,860	\$ 228.29	6.05	\$ 3.02	4,804	\$ 291.05
Exercisable and vested, December 31, 2019	7,025	\$ 94.07	3.39	\$ 2.28		

The weighted-average grant date fair value of RSUs in the years ended December 31, 2019, 2018, and 2017 was \$82.74, \$316.46 and \$308.71, respectively. The aggregate release date fair value of RSUs in the years ended December 31, 2019, 2018 and 2017 was \$502 million, \$546 million and \$491 million, respectively.

The aggregate intrinsic value of options exercised in the years ended December 31, 2019, 2018, and 2017 was \$37 million, \$293 million and \$544 million, respectively.

Fair Value Assumptions

We use the fair value method in recognizing stock-based compensation expense. Under the fair value method, we estimate the fair value of each stock option award with service or service and performance conditions and the ESPP on the grant date generally using the Black-Scholes option pricing model and the weighted-average assumptions in the following table:

	Year Ended December 31,		
	2019	2018	2017
Risk-free interest rate:			
Stock options	2.4%	2.5%	1.8%
ESPP	2.2%	2.0%	1.1%
Expected term (in years):			
Stock options	4.5	4.7	5.1
ESPP	0.5	0.5	0.5
Expected volatility:			
Stock options	48%	42%	42%
ESPP	53%	43%	35%
Dividend yield:			
Stock options	0.0%	0.0%	0.0%
ESPP	0.0%	0.0%	0.0%
Grant date fair value per share:			
Stock options	\$ 111.59	\$ 121.92	\$ 122.25
ESPP	\$ 78.25	\$ 84.37	\$ 75.05

The fair value of RSUs with service or service and performance conditions is measured on the grant date based on the closing fair market value of our common stock. The risk-free interest rate is based on the U.S. Treasury yield for zero-coupon U.S. Treasury notes with maturities approximating each grant's expected life. Prior to the fourth quarter of 2017, given our then limited history with employee grants, we used the "simplified" method in estimating the expected term of our employee grants; the simplified method utilizes the average of the time-to-vesting and the contractual life of the employee grant. Beginning with the fourth quarter of 2017, we use our historical data in estimating the expected term of our employee grants. The expected volatility is based on the average of the implied volatility of publicly traded options for our common stock and the historical volatility of our common stock.

2018 CEO Performance Award

In March 2018, our stockholders approved the Board of Directors' grant of 20,264,042 stock option awards to our CEO (the "2018 CEO Performance Award"). The 2018 CEO Performance Award consists of 12 vesting tranches with a vesting schedule based entirely on the attainment of both operational milestones (performance conditions) and market conditions, assuming continued employment either as the CEO or as both Executive Chairman and Chief Product Officer and service through each vesting date. Each of the 12 vesting tranches of the 2018 CEO Performance Award will vest upon certification by the Board of Directors that both (i) the market capitalization milestone for such tranche, which begins at \$100 billion for the first tranche and increases by increments of \$50 billion thereafter, and (ii) any one of the following eight operational milestones focused on revenue or eight operational milestones focused on Adjusted EBITDA have been met for the previous four consecutive fiscal quarters on an annualized basis. Adjusted EBITDA is defined as net income (loss) attributable to common stockholders before interest expense, provision (benefit) for income taxes, depreciation and amortization and stock-based compensation.

Total Annualized Revenue (in billions)	Annualized Adjusted EBITDA (in billions)
\$20.0	\$1.5
\$35.0	\$3.0
\$55.0	\$4.5
\$75.0	\$6.0
\$100.0	\$8.0
\$125.0	\$10.0
\$150.0	\$12.0
\$175.0	\$14.0

As of December 31, 2019, two operational milestones have been achieved: (i) \$20.0 billion total annualized revenue and (ii) \$1.5 billion annualized adjusted EBITDA, each subject to the formal certification by our Board of Directors, while no market capitalization milestones have been achieved. Consequently, no shares subject to the 2018 CEO Performance Award have vested as of the date of this filing.

As of December 31, 2019, the following operational milestones were considered probable of achievement:

- Adjusted EBITDA of \$3.0 billion
- Total revenue of \$35.0 billion

Stock-based compensation expense associated with each tranche under the 2018 CEO Performance Award is recognized over the longer of (i) the expected achievement period for the operational milestone for such tranche and (ii) the expected achievement period for the related market capitalization milestone determined on the grant date, beginning at the point in time when the relevant operational milestone is considered probable of being met. If such operational milestone becomes probable any time after the grant date, we will recognize a cumulative catch-up expense from the grant date to that point in time. If the related market capitalization milestone is achieved earlier than its expected achievement period and the achievement of the related operational milestone, then the stock-based compensation expense will be recognized over the expected achievement period for the operational milestone, which may accelerate the rate at which such expense is recognized.

The market capitalization milestone period and the valuation of each tranche are determined using a Monte Carlo simulation and is used as the basis for determining the expected achievement period. The probability of meeting an operational milestone is based on a subjective assessment of our future financial projections. No tranches of the 2018 CEO Performance Award will vest unless a market capitalization and a matching operational milestone are both achieved. The first tranche of the 2018 CEO Performance Award will not vest unless our market capitalization were to approximately double from the initial level at the time the award was approved, based on both a six calendar month trailing average and a 30 calendar day trailing average (counting only trading days). Upon vesting of a tranche, all unamortized expense for the tranche will be recognized immediately. Additionally, stock-based compensation represents a non-cash expense and is recorded as a selling, general, and administrative operating expense in our consolidated statement of operations.

As of December 31, 2019, we had \$527 million of total unrecognized stock-based compensation expense for the operational milestones that were considered probable of achievement, which will be recognized over a weighted-average period of 2.72 years. As of December 31, 2019, we had unrecognized stock-based compensation expense of \$1.29 billion for the operational milestones that were considered not probable of achievement. For the year ended December 31, 2019, we recorded stock-based compensation expense of \$296 million related to the 2018 CEO Performance Award. From March 21, 2018, when the grant was approved by our stockholders, through December 31, 2018, we recorded stock-based compensation expense of \$175 million related to this award. The increase in stock-based compensation expense was primarily related to a \$72 million cumulative catch-up expense for the service provided from the grant date when an additional operational milestone was considered probable of being met in the fourth quarter of 2019 and a shorter expense period in the prior year.

2014 Performance-Based Stock Option Awards

In 2014, to create incentives for continued long-term success beyond the Model S program and to closely align executive pay with our stockholders' interests in the achievement of significant milestones by us, the Compensation Committee of our Board of Directors granted stock option awards to certain employees (excluding our CEO) to purchase an aggregate of 1,073,000 shares of our common stock. Each award consisted of the following four vesting tranches with the vesting schedule based entirely on the attainment of the future performance milestones, assuming continued employment and service through each vesting date:

- 1/4th of each award vests upon completion of the first Model X production vehicle;
- 1/4th of each award vests upon achieving aggregate production of 100,000 vehicles in a trailing 12-month period;
- 1/4th of each award vests upon completion of the first Model 3 production vehicle; and
- 1/4th of each award vests upon achieving an annualized gross margin of greater than 30% for any three-year period.

As of December 31, 2019, the following performance milestones had been achieved:

- Completion of the first Model X production vehicle;
- Completion of the first Model 3 production vehicle; and
- Aggregate production of 100,000 vehicles in a trailing 12-month period.

We begin recognizing stock-based compensation expense as each performance milestone becomes probable of achievement. As of December 31, 2019, we had unrecognized stock-based compensation expense of \$5 million for the performance milestone that was considered not probable of achievement. For the years ended December 31, 2019 and 2018, we did not record any additional stock-based compensation related to these awards. For the year ended December 2017, we recorded stock-based compensation expense of \$7 million related to these awards.

2012 CEO Performance Award

In August 2012, our Board of Directors granted 5,274,901 stock option awards to our CEO (the “2012 CEO Performance Award”). The 2012 CEO Performance Award consists of 10 vesting tranches with a vesting schedule based entirely on the attainment of both performance conditions and market conditions, assuming continued employment and service through each vesting date. Each vesting tranche requires a combination of a pre-determined performance milestone and an incremental increase in our market capitalization of \$4.00 billion, as compared to our initial market capitalization of \$3.20 billion at the time of grant. As of December 31, 2019, the market capitalization conditions for all of the vesting tranches and the following performance milestones had been achieved:

- Successful completion of the Model X alpha prototype;
- Successful completion of the Model X beta prototype;
- Completion of the first Model X production vehicle;
- Aggregate production of 100,000 vehicles;
- Successful completion of the Model 3 alpha prototype;
- Successful completion of the Model 3 beta prototype;
- Completion of the first Model 3 production vehicle;
- Aggregate production of 200,000 vehicles; and
- Aggregate production of 300,000 vehicles.

We begin recognizing stock-based compensation expense as each milestone becomes probable of achievement. As of December 31, 2019, we had unrecognized stock-based compensation expense of \$6 million for the performance milestone that was considered not probable of achievement. For the year ended December 31, 2019, we recorded no stock-based compensation expense related to the 2012 CEO Performance Award. For the year ended December 31, 2018, the stock-based compensation we recorded related to this award was immaterial. For the year ended December 31, 2017, we recorded stock-based compensation expense of \$5 million related to this award.

Our CEO earns a base salary that reflects the currently applicable minimum wage requirements under California law, and he is subject to income taxes based on such base salary. However, he has never accepted his salary. Commencing in May 2019 at our CEO’s request, we eliminated altogether the earning and accrual of his base salary.

Summary Stock-Based Compensation Information

The following table summarizes our stock-based compensation expense by line item in the consolidated statements of operations (in millions):

	Year Ended December 31,		
	2019	2018	2017
Cost of revenues	\$ 128	\$ 109	\$ 64
Research and development	285	261	218
Selling, general and administrative	482	375	185
Restructuring and other	3	4	—
Total	\$ 898	\$ 749	\$ 467

We realized no income tax benefit from stock option exercises in each of the periods presented due to cumulative losses and valuation allowances. As of December 31, 2019, we had \$1.57 billion of total unrecognized stock-based compensation expense related to non-performance awards, which will be recognized over a weighted-average period of 2.91 years.

ESPP

Our employees are eligible to purchase our common stock through payroll deductions of up to 5% of their eligible compensation, subject to any plan limitations. The purchase price would be 85% of the lower of the fair market value on the first and last trading days of each six-month offering period. During the years ended December 31, 2019, 2018 and 2017, we issued 0.5 million, 0.4 million and 0.4 million shares under the ESPP with an associated expense of \$40 million, \$109 million and \$71 million, respectively. There were 7 million shares available for issuance under the ESPP as of December 31, 2019.

Note 15 – Income Taxes

A provision for income taxes of \$110 million, \$58 million and \$32 million has been recognized for the years ended December 31, 2019, 2018 and 2017, respectively, related primarily to our subsidiaries located outside of the U.S. Our loss before provision for income taxes for the years ended December 31, 2019, 2018 and 2017 was as follows (in millions):

	Year Ended December 31,		
	2019	2018	2017
Domestic	\$ 287	\$ 412	\$ 993
Noncontrolling interest and redeemable noncontrolling interest	(87)	87	279
Foreign	465	506	937
Loss before income taxes	<u>\$ 665</u>	<u>\$ 1,005</u>	<u>\$ 2,209</u>

The components of the provision for income taxes for the years ended December 31, 2019, 2018 and 2017 consisted of the following (in millions):

	Year Ended December 31,		
	2019	2018	2017
Current:			
Federal	\$ —	\$ (1)	\$ (10)
State	5	3	2
Foreign	86	24	43
Total current	<u>91</u>	<u>26</u>	<u>35</u>
Deferred:			
Federal	(4)	—	—
State	—	—	—
Foreign	23	32	(3)
Total deferred	<u>19</u>	<u>32</u>	<u>(3)</u>
Total provision for income taxes	<u>\$ 110</u>	<u>\$ 58</u>	<u>\$ 32</u>

On December 22, 2017, the 2017 Tax Cuts and Jobs Act (“Tax Act”) was enacted into law making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a federal corporate tax rate decrease from 35% to 21% for tax years beginning after December 31, 2017, the transition of U.S. international taxation from a worldwide tax system to a territorial system and a one-time transition tax on the mandatory deemed repatriation of foreign earnings. We were required to recognize the effect of the tax law changes in the period of enactment, such as re-measuring our U.S. deferred tax assets and liabilities as well as reassessing the net realizability of our deferred tax assets and liabilities. The Tax Act did not give rise to any material impact on the consolidated balance sheets and consolidated statements of operations due to our historical worldwide loss position and the full valuation allowance on our net U.S. deferred tax assets.

Deferred tax assets (liabilities) as of December 31, 2019 and 2018 consisted of the following (in millions):

	December 31, 2019	December 31, 2018
Deferred tax assets:		
Net operating loss carry-forwards	\$ 1,846	\$ 1,760
Research and development credits	486	377
Other tax credits	126	128
Deferred revenue	301	156
Inventory and warranty reserves	243	165
Stock-based compensation	102	102
Operating lease right-of-use liabilities	290	—
Accruals and others	16	28
Total deferred tax assets	3,410	2,716
Valuation allowance	(1,956)	(1,806)
Deferred tax assets, net of valuation allowance	1,454	910
Deferred tax liabilities:		
Depreciation and amortization	(1,185)	(861)
Investment in certain financing funds	(17)	(33)
Operating lease right-of-use assets	(263)	—
Other	(24)	(24)
Total deferred tax liabilities	(1,489)	(918)
Deferred tax liabilities, net of valuation allowance and deferred tax assets	<u>\$ (35)</u>	<u>\$ (8)</u>

As of December 31, 2019, we recorded a valuation allowance of \$1.96 billion for the portion of the deferred tax asset that we do not expect to be realized. The valuation allowance on our net deferred taxes increased by \$150 million, decreased by \$38 million, and increased by \$821 million during the years ended December 31, 2019, 2018 and 2017, respectively. The changes in valuation allowance are primarily due to additional U.S. deferred tax assets and liabilities incurred in the respective year. We have net \$151 million of deferred tax assets in foreign jurisdictions, which management believes are more-likely-than-not to be fully realized given the expectation of future earnings in these jurisdictions. We continue to monitor the realizability of the U.S. deferred tax assets taking into account multiple factors, including the results of operations and magnitude of excess tax deductions for stock-based compensation. We intend to continue maintaining a full valuation allowance on our U.S. deferred tax assets until there is sufficient evidence to support the reversal of all or some portion of these allowances. Release of all, or a portion, of the valuation allowance would result in the recognition of certain deferred tax assets and a decrease to income tax expense for the period the release is recorded.

The reconciliation of taxes at the federal statutory rate to our provision for income taxes for the years ended December 31, 2019, 2018 and 2017 was as follows (in millions):

	Year Ended December 31,		
	2019	2018	2017
Tax at statutory federal rate	\$ (139)	\$ (211)	\$ (773)
State tax, net of federal benefit	5	3	2
Nondeductible expenses	94	65	30
Excess tax benefits related to stock based compensation (1)	(7)	(44)	(1,013)
Foreign income rate differential	189	161	365
U.S. tax credits	(107)	(80)	(110)
Noncontrolling interests and redeemable noncontrolling interests adjustment	(29)	32	66
Effect of U.S. tax law change	—	—	723
Bargain in purchase gain	—	—	20
Convertible debt	(4)	—	—
Unrecognized tax benefits	17	1	3
Change in valuation allowance	91	131	719
Provision for income taxes	<u>\$ 110</u>	<u>\$ 58</u>	<u>\$ 32</u>

- (1) As of January 1, 2017, upon the adoption of ASU No. 2016-09, Improvements to Employee Share-based Payment Accounting, excess tax benefits from share-based award activity incurred from the prior and current years are reflected as a reduction of the provision for income taxes. The excess tax benefits result in an increase to our gross U.S. deferred tax assets that is offset by a corresponding increase to our valuation allowance.

As of December 31, 2019, we had \$7.51 billion of federal and \$6.16 billion of state net operating loss carry-forwards available to offset future taxable income, which will not begin to significantly expire until 2024 for federal and 2028 for state purposes. A portion of these losses were generated by SolarCity prior to our acquisition in 2016 and, therefore, are subject to change of control provisions, which limit the amount of acquired tax attributes that can be utilized in a given tax year. We do not expect these change of control limitations to significantly impact our ability to utilize these attributes.

As of December 31, 2019, we had research and development tax credits of \$320 million and \$284 million for federal and state income tax purposes, respectively. If not utilized, the federal research and development tax credits will expire in various amounts beginning in 2024. However, the state research and development tax credits can be carried forward indefinitely. In addition, we have other general business tax credits of \$125 million for federal income tax purposes, which will not begin to significantly expire until 2033.

No deferred tax liabilities for foreign withholding taxes have been recorded relating to the earnings of our foreign subsidiaries since all such earnings are intended to be indefinitely reinvested. The amount of the unrecognized deferred tax liability associated with these earnings is immaterial.

Federal and state laws can impose substantial restrictions on the utilization of net operating loss and tax credit carry-forwards in the event of an "ownership change," as defined in Section 382 of the Internal Revenue Code. We have determined that no significant limitation would be placed on the utilization of our net operating loss and tax credit carry-forwards due to prior ownership changes.

Uncertain Tax Positions

The changes to our gross unrecognized tax benefits were as follows (in millions):

December 31, 2016	\$	204
Decreases in balances related to prior year tax positions		(31)
Increases in balances related to current year tax positions		84
Changes in balances related to effect of U.S. tax law change		(58)
December 31, 2017		199
Decreases in balances related to prior year tax positions		(6)
Increases in balances related to current year tax positions		60
December 31, 2018		253
Decreases in balances related to prior year tax positions		(39)
Increases in balances related to current year tax positions		59
December 31, 2019	\$	273

As of December 31, 2019, accrued interest and penalties related to unrecognized tax benefits are classified as income tax expense and were immaterial. Unrecognized tax benefits of \$247 million, if recognized, would not affect our effective tax rate since the tax benefits would increase a deferred tax asset that is currently fully offset by a full valuation allowance.

We file income tax returns in the U.S., California and various state and foreign jurisdictions. We are currently under examination by the IRS for the years 2015 and 2016. Additional tax years within the period 2004 to 2018 remain subject to examination for federal income tax purposes, and tax years 2004 to 2018 remain subject to examination for California income tax purposes. All net operating losses and tax credits generated to date are subject to adjustment for U.S. federal and California income tax purposes. Tax years 2008 to 2018 remain subject to examination in other U.S. state and foreign jurisdictions.

The potential outcome of the current examination could result in a change to unrecognized tax benefits within the next twelve months. However, we cannot reasonably estimate possible adjustments at this time.

The U.S. Tax Court issued a decision in *Altera Corp v. Commissioner* related to the treatment of stock-based compensation expense in a cost-sharing arrangement. On June 7, 2019, the Court reversed the Tax Court decision and upheld the validity of Treas. Reg. Section 1.482-7A(d)(2), requiring stock-based compensation costs be included in the costs shared under a cost sharing agreement. Given that the current active decision can still be appealed because Altera has the option to petition up to the Supreme Court, Tesla's position is to continue to include stock-based compensation in cost sharing allocation agreement. If and when the current tax court's decision is overturned, we will treat the amount previously shared as a pre-payment to future cost sharing agreement costs. Because we have a full valuation allowance in the U.S., any potential tax benefits would increase our U.S. deferred tax asset and would not have a material impact to our financials.

Note 16 – Commitments and Contingencies***Operating Lease Arrangement in Buffalo, New York***

We have an operating lease through the Research Foundation for the State University of New York (the “SUNY Foundation”) for a manufacturing facility constructed on behalf of the SUNY Foundation and which was substantially completed in April 2018. We use this facility, referred to as Gigafactory New York, primarily for the development and production of our Solar Roof and other solar products and components, energy storage components, and Supercharger components, and for other lessor-approved functions. Under the lease and a related research and development agreement, on behalf of the SUNY Foundation, we have and will continue to install certain utilities and other improvements and acquire certain equipment designated by us to be used in the manufacturing facility. The SUNY Foundation covered (i) construction costs related to the manufacturing facility up to \$350 million, (ii) the acquisition and commissioning of the manufacturing equipment in an amount up to \$275 million and (iii) \$125 million for additional specified scope costs, in cases (i) and (ii) only, subject to the maximum funding allocation from the State of New York; and we were responsible for any construction or equipment costs in excess of such amounts. The SUNY Foundation owns the manufacturing facility and the manufacturing equipment purchased by the SUNY Foundation. Following completion of the manufacturing facility, we have commenced leasing of the manufacturing facility and the manufacturing equipment owned by the SUNY Foundation for an initial period of 10 years, with an option to renew, for \$2.00 per year plus utilities. Following the adoption of ASC 842, we no longer recognize the build-to-suit asset and related depreciation expense or the corresponding financing liability and related amortization for Gigafactory New York in our consolidated financial statements.

Under the terms of the operating lease arrangement, we are required to achieve specific operational milestones during the initial lease term; which include employing a certain number of employees at the manufacturing facility, within western New York and within the State of New York within specified periods following the completion of the manufacturing facility. We are also required to spend or incur \$5.00 billion in combined capital, operational expenses and other costs in the State of New York within 10 years following the achievement of full production. On an annual basis during the initial lease term, as measured on each anniversary of the commissioning of the manufacturing facility, if we fail to meet these specified investment and job creation requirements, then we would be obligated to pay a \$41 million “program payment” to the SUNY Foundation for each year that we fail to meet these requirements. Furthermore, if the arrangement is terminated due to a material breach by us, then additional amounts might become payable by us. As of December 31, 2019, we have met the targets as of the applicable measurement dates and anticipate meeting the remaining obligations through our operations at this facility and other operations within the State of New York.

Operating Lease Arrangement in Shanghai, China

We have an operating lease arrangement for an initial term of 50 years with the local government of Shanghai for land use rights where we are constructing Gigafactory Shanghai. Under the terms of the arrangement, we are required to spend RMB 14.08 billion in capital expenditures, and to generate RMB 2.23 billion of annual tax revenues starting at the end of 2023. If we are unwilling or unable to meet such target or obtain periodic project approvals, in accordance with the Chinese government’s standard terms for such arrangements, we would be required to revert the site to the local government and receive compensation for the remaining value of the land lease, buildings and fixtures. We believe the capital expenditure requirement and the tax revenue target will be attainable even if our actual vehicle production was far lower than the volumes we are forecasting.

Legal Proceedings***Securities Litigation Relating to the SolarCity Acquisition***

Between September 1, 2016 and October 5, 2016, seven lawsuits were filed in the Delaware Court of Chancery by purported stockholders of Tesla challenging our acquisition of SolarCity. Following consolidation, the lawsuit names as defendants the members of Tesla's board of directors as then constituted and alleges, among other things, that board members breached their fiduciary duties in connection with the acquisition. The complaint asserts both derivative claims and direct claims on behalf of a purported class and seeks, among other relief, unspecified monetary damages, attorneys' fees, and costs. On January 27, 2017, defendants filed a motion to dismiss the operative complaint. Rather than respond to the defendants' motion, the plaintiffs filed an amended complaint. On March 17, 2017, defendants filed a motion to dismiss the amended complaint. On December 13, 2017, the Court heard oral argument on the motion. On March 28, 2018, the Court denied defendants' motion to dismiss. Defendants filed a request for interlocutory appeal, but the Delaware Supreme Court denied that request without ruling on the merits but electing not to hear an appeal at this early stage of the case. Defendants filed their answer on May 18, 2018, and mediations were held on June 10, 2019. Plaintiffs and defendants filed respective motions for summary judgment on August 25, 2019, and further mediations were held on October 3, 2019. The Court held a hearing on the motions for summary judgment on November 4, 2019. On January 22, 2020, all of the director defendants except Elon Musk reached a tentative settlement to resolve the lawsuit against them for an amount that would be paid entirely under the applicable insurance policy. The settlement does not involve an admission of any wrongdoing by any party. Tesla will receive such amount, which would be recognized as a gain in its financial statements, if the settlement is finally approved by the Court. On February 4, 2020, the Court issued a ruling that denied plaintiffs' previously-filed motion and granted in part and denied in part defendants' previously-filed motion. Fact and expert discovery is complete, and the case is set for trial in March 2020.

These plaintiffs and others filed parallel actions in the U.S. District Court for the District of Delaware on or about April 21, 2017. They include claims for violations of the federal securities laws and breach of fiduciary duties by Tesla's board of directors. Those actions have been consolidated and stayed pending the above-referenced Chancery Court litigation.

We believe that claims challenging the SolarCity acquisition are without merit and intend to defend against them vigorously. We are unable to estimate the possible loss or range of loss, if any, associated with these claims.

Securities Litigation Relating to Production of Model 3 Vehicles

On October 10, 2017, a purported stockholder class action was filed in the U.S. District Court for the Northern District of California against Tesla, two of its current officers, and a former officer. The complaint alleges violations of federal securities laws and seeks unspecified compensatory damages and other relief on behalf of a purported class of purchasers of Tesla securities from May 4, 2016 to October 6, 2017. The lawsuit claims that Tesla supposedly made materially false and misleading statements regarding the Company's preparedness to produce Model 3 vehicles. Plaintiffs filed an amended complaint on March 23, 2018, and defendants filed a motion to dismiss on May 25, 2018. The court granted defendants' motion to dismiss with leave to amend. Plaintiffs filed their amended complaint on September 28, 2018, and defendants filed a motion to dismiss the amended complaint on February 15, 2019. The hearing on the motion to dismiss was held on March 22, 2019, and on March 25, 2019, the Court ruled in favor of defendants and dismissed the complaint with prejudice. On April 8, 2019, plaintiffs filed a notice of appeal and on July 17, 2019 filed their opening brief. We filed our opposition on September 16, 2019. We continue to believe that the claims are without merit and intend to defend against this lawsuit vigorously. We are unable to estimate the possible loss or range of loss, if any, associated with this lawsuit.

On October 26, 2018, in a similar action, a purported stockholder class action was filed in the Superior Court of California in Santa Clara County against Tesla, Elon Musk and seven initial purchasers in an offering of debt securities by Tesla in August 2017. The complaint alleges misrepresentations made by Tesla regarding the number of Model 3 vehicles Tesla expected to produce by the end of 2017 in connection with such offering and seeks unspecified compensatory damages and other relief on behalf of a purported class of purchasers of Tesla securities in such offering. Tesla thereafter removed the case to federal court. On January 22, 2019, plaintiff abandoned its effort to proceed in state court, instead filing an amended complaint against Tesla, Elon Musk and seven initial purchasers in the debt offering before the same judge in the U.S. District Court for the Northern District of California who is hearing the above-referenced earlier filed federal case. On February 5, 2019, the Court stayed this new case pending a ruling on the motion to dismiss the complaint in such earlier filed federal case. After such earlier filed federal case was dismissed, defendants filed a motion on July 2, 2019 to dismiss this case as well. This case is now stayed pending a ruling from the appellate court on such earlier filed federal case with an agreement that if defendants prevail on appeal in such case, this case will be dismissed. We believe that the claims are without merit and intend to defend against this lawsuit vigorously. We are unable to estimate the possible loss or range of loss, if any, associated with this lawsuit.

Litigation Relating to 2018 CEO Performance Award

On June 4, 2018, a purported Tesla stockholder filed a putative class and derivative action in the Delaware Court of Chancery against Elon Musk and the members of Tesla's board of directors as then constituted, alleging corporate waste, unjust enrichment and that such board members breached their fiduciary duties by approving the stock-based compensation plan. The complaint seeks, among other things, monetary damages and rescission or reformation of the stock-based compensation plan. On August 31, 2018, defendants filed a motion to dismiss the complaint; plaintiff filed its opposition brief on November 1, 2018 and defendants filed a reply brief on December 13, 2018. The hearing on the motion to dismiss was held on May 9, 2019. On September 20, 2019, the Court granted the motion to dismiss as to the corporate waste claim but denied the motion as to the breach of fiduciary duty and unjust enrichment claims. Our answer was filed on December 3, 2019, and trial is set for June 2021. We believe the claims asserted in this lawsuit are without merit and intend to defend against them vigorously.

Securities Litigation Relating to Potential Going Private Transaction

Between August 10, 2018 and September 6, 2018, nine purported stockholder class actions were filed against Tesla and Elon Musk in connection with Elon Musk's August 7, 2018 Twitter post that he was considering taking Tesla private. All of the suits are now pending in the U.S. District Court for the Northern District of California. Although the complaints vary in certain respects, they each purport to assert claims for violations of federal securities laws related to Mr. Musk's statement and seek unspecified compensatory damages and other relief on behalf of a purported class of purchasers of Tesla's securities. Plaintiffs filed their consolidated complaint on January 16, 2019 and added as defendants the members of Tesla's board of directors. The now-consolidated purported stockholder class action was stayed while the issue of selection of lead counsel was briefed and argued before the U.S. Court of Appeals for the Ninth Circuit. The Ninth Circuit ruled regarding lead counsel. Defendants filed a motion to dismiss the complaint on November 22, 2019. The hearing on the motion is set for March 6, 2020. We believe that the claims have no merit and intend to defend against them vigorously. We are unable to estimate the potential loss, or range of loss, associated with these claims.

Between October 17, 2018 and November 9, 2018, five derivative lawsuits were filed in the Delaware Court of Chancery against Mr. Musk and the members of Tesla's board of directors as then constituted in relation to statements made and actions connected to a potential going private transaction. In addition to these cases, on October 25, 2018, another derivative lawsuit was filed in the U.S. District Court for the District of Delaware against Mr. Musk and the members of the Tesla board of directors as then constituted. The Courts in both the Delaware federal court and Delaware Court of Chancery actions have consolidated their respective actions and stayed each consolidated action pending resolution of the above-referenced consolidated purported stockholder class action. We believe that the claims have no merit and intend to defend against them vigorously. We are unable to estimate the potential loss, or range of loss, associated with these claims.

On March 7, 2019, various stockholders filed a derivative suit in the Delaware Court of Chancery, purportedly on behalf of the Company, naming Elon Musk and Tesla's board of directors, also related to Mr. Musk's August 7, 2018 Twitter post that is the basis of the above-referenced consolidated purported stockholder class action as well as Mr. Musk's February 19, 2019 Twitter post regarding Tesla's vehicle production. The suit asserts claims for breach of fiduciary duty and seeks declaratory and injunctive relief, unspecified damages, and other relief. Plaintiffs moved for expedited proceedings in connection with the declaratory and injunctive relief. Briefs were filed on March 13, 2019 and the hearing held on March 18, 2019. Defendants prevailed, with the Court denying plaintiffs' request for an expedited trial and granting defendants' request to stay this action pending the outcome of the above-referenced consolidated purported stockholder class action.

Settlement with SEC related to Potential Going Private Transaction

On October 16, 2018, the U.S. District Court for the Southern District of New York entered a final judgment approving the terms of a settlement filed with the Court on September 29, 2018, in connection with the actions taken by the U.S. Securities and Exchange Commission (the "SEC") relating to Elon Musk's prior statement that he was considering taking Tesla private. Without admitting or denying any of the SEC's allegations, and with no restriction on Mr. Musk's ability to serve as an officer or director on the Board (other than as its Chair), among other things, we and Mr. Musk paid civil penalties of \$20 million each and agreed that an independent director will serve as Chair of the Board for at least three years, and we appointed such an independent Chair of the Board and two additional independent directors to the Board, and further enhanced our disclosure controls and other corporate governance-related matters. On April 26, 2019, the settlement was amended to modify certain of the previously-agreed disclosure procedures to clarify the application of such procedures, which was subsequently approved by the Court. All other terms of the prior settlement were reaffirmed without modification.

Certain Investigations and Other Matters

We receive requests for information from regulators and governmental authorities, such as the National Highway Traffic Safety Administration, the National Transportation Safety Board, the SEC, the Department of Justice ("DOJ") and various state, federal and international agencies. We routinely cooperate with such regulatory and governmental requests.

In particular, the SEC had issued subpoenas to Tesla in connection with (a) Elon Musk's prior statement that he was considering taking Tesla private and (b) certain projections that we made for Model 3 production rates during 2017 and other public statements relating to Model 3 production. The take-private investigation was resolved and closed with the settlement with the SEC described above. On December 4, 2019, the SEC (i) closed the investigation into the projections and other public statements regarding Model 3 production rates and (ii) issued a subpoena seeking information concerning certain financial data and contracts including Tesla's regular financing arrangements. Separately, the DOJ had also asked us to voluntarily provide it with information about the above matters related to taking Tesla private and Model 3 production rates.

Aside from the settlement, as amended, with the SEC relating to Mr. Musk's statement that he was considering taking Tesla private, there have not been any developments in these matters that we deem to be material, and to our knowledge no government agency in any ongoing investigation has concluded that any wrongdoing occurred. As is our normal practice, we have been cooperating and will continue to cooperate with government authorities. We cannot predict the outcome or impact of any ongoing matters. Should the government decide to pursue an enforcement action, there exists the possibility of a material adverse impact on our business, results of operation, prospects, cash flows, and financial position.

We are also subject to various other legal proceedings and claims that arise from the normal course of business activities. If an unfavorable ruling or development were to occur, there exists the possibility of a material adverse impact on our business, results of operations, prospects, cash flows, financial position and brand.

Indemnification and Guaranteed Returns

We are contractually obligated to compensate certain fund investors for any losses that they may suffer in certain limited circumstances resulting from reductions in U.S. Treasury grants or investment tax credits (“ITC”s). Generally, such obligations would arise as a result of reductions to the value of the underlying solar energy systems as assessed by the U.S. Treasury Department for purposes of claiming U.S. Treasury grants or as assessed by the IRS for purposes of claiming ITCs or U.S. Treasury grants. For each balance sheet date, we assess and recognize, when applicable, a distribution payable for the potential exposure from this obligation based on all the information available at that time, including any guidelines issued by the U.S. Treasury Department on solar energy system valuations for purposes of claiming U.S. Treasury grants and any audits undertaken by the IRS. We believe that any payments to the fund investors in excess of the amounts already recognized by us for this obligation are not probable or material based on the facts known at the filing date.

The maximum potential future payments that we could have to make under this obligation would depend on the difference between the fair values of the solar energy systems sold or transferred to the funds as determined by us and the values that the U.S. Treasury Department would determine as fair value for the systems for purposes of claiming U.S. Treasury grants or the values the IRS would determine as the fair value for the systems for purposes of claiming ITCs or U.S. Treasury grants. We claim U.S. Treasury grants based on guidelines provided by the U.S. Treasury department and the statutory regulations from the IRS. We use fair values determined with the assistance of independent third-party appraisals commissioned by us as the basis for determining the ITCs that are passed-through to and claimed by the fund investors. Since we cannot determine future revisions to U.S. Treasury Department guidelines governing solar energy system values or how the IRS will evaluate system values used in claiming ITCs or U.S. Treasury grants, we are unable to reliably estimate the maximum potential future payments that it could have to make under this obligation as of each balance sheet date.

We are eligible to receive certain state and local incentives that are associated with renewable energy generation. The amount of incentives that can be claimed is based on the projected or actual solar energy system size and/or the amount of solar energy produced. We also currently participate in one state’s incentive program that is based on either the fair market value or the tax basis of solar energy systems placed in service. State and local incentives received are allocated between us and fund investors in accordance with the contractual provisions of each fund. We are not contractually obligated to indemnify any fund investor for any losses they may incur due to a shortfall in the amount of state or local incentives actually received.

Our lease pass-through financing funds have a one-time lease payment reset mechanism that occurs after the installation of all solar energy systems in a fund. As a result of this mechanism, we may be required to refund master lease prepayments previously received from investors. Any refunds of master lease prepayments would reduce the lease pass-through financing obligation.

Letters of Credit

As of December 31, 2019, we had \$282 million of unused letters of credit outstanding.

Note 17 – Variable Interest Entity Arrangements

We have entered into various arrangements with investors to facilitate the funding and monetization of our solar energy systems and vehicles. In particular, our wholly owned subsidiaries and fund investors have formed and contributed cash and assets into various financing funds and entered into related agreements. We have determined that the funds are variable interest entities (“VIEs”) and we are the primary beneficiary of these VIEs by reference to the power and benefits criterion under ASC 810, *Consolidation*. We have considered the provisions within the agreements, which grant us the power to manage and make decisions that affect the operation of these VIEs, including determining the solar energy systems or vehicles and the associated customer contracts to be sold or contributed to these VIEs, redeploying solar energy systems or vehicles and managing customer receivables. We consider that the rights granted to the fund investors under the agreements are more protective in nature rather than participating.

As the primary beneficiary of these VIEs, we consolidate in the financial statements the financial position, results of operations and cash flows of these VIEs, and all intercompany balances and transactions between us and these VIEs are eliminated in the consolidated financial statements. Cash distributions of income and other receipts by a fund, net of agreed upon expenses, estimated expenses, tax benefits and detriments of income and loss and tax credits, are allocated to the fund investor and our subsidiary as specified in the agreements.

Generally, our subsidiary has the option to acquire the fund investor's interest in the fund for an amount based on the market value of the fund or the formula specified in the agreements.

Upon the sale or liquidation of a fund, distributions would occur in the order and priority specified in the agreements.

Pursuant to management services, maintenance and warranty arrangements, we have been contracted to provide services to the funds, such as operations and maintenance support, accounting, lease servicing and performance reporting. In some instances, we have guaranteed payments to the fund investors as specified in the agreements. A fund's creditors have no recourse to our general credit or to that of other funds. None of the assets of the funds had been pledged as collateral for their obligations.

The aggregate carrying values of the VIEs' assets and liabilities, after elimination of any intercompany transactions and balances, in the consolidated balance sheets were as follows (in millions):

	December 31, 2019	December 31, 2018
Assets		
Current assets		
Cash and cash equivalents	\$ 106	\$ 75
Restricted cash	90	131
Accounts receivable, net	27	19
Prepaid expenses and other current assets	10	10
Total current assets	233	235
Operating lease vehicles, net	1,183	155
Solar energy systems, net	5,030	5,117
Restricted cash, net of current portion	69	65
Other assets	87	56
Total assets	<u>\$ 6,602</u>	<u>\$ 5,628</u>
Liabilities		
Current liabilities		
Accrued liabilities and other	80	133
Deferred revenue	78	21
Customer deposits	9	—
Current portion of long-term debt and finance leases	608	663
Total current liabilities	775	817
Deferred revenue, net of current portion	264	178
Long-term debt and finance leases, net of current portion	1,516	1,238
Other long-term liabilities	22	26
Total liabilities	<u>\$ 2,577</u>	<u>\$ 2,259</u>

Note 18 – Lease Pass-Through Financing Obligation

Through December 31, 2019, we had entered into eight transactions referred to as “lease pass-through fund arrangements”. Under these arrangements, our wholly owned subsidiaries finance the cost of solar energy systems with investors through arrangements contractually structured as master leases for an initial term ranging between 10 and 25 years. These solar energy systems are subject to lease or PPAs with customers with an initial term not exceeding 25 years. These solar energy systems are included within solar energy systems, net on the consolidated balance sheets.

The cost of the solar energy systems under lease pass-through fund arrangements as of December 31, 2019 and 2018 was \$1.05 billion. The accumulated depreciation on these assets as of December 31, 2019 and 2018 was \$101 million and \$66 million, respectively. The total lease pass-through financing obligation as of December 31, 2019 was \$94 million, of which \$57 million is classified as a current liability. The total lease pass-through financing obligation as of December 31, 2018 was \$112 million, of which \$62 million was classified as a current liability. Lease pass-through financing obligation is included in accrued liabilities and other for the current portion and other long-term liabilities for the long-term portion on the consolidated balance sheets.

Under a lease pass-through fund arrangement, the investor makes a large upfront payment to the lessor, which is one of our subsidiaries, and in some cases, subsequent periodic payments. We allocate a portion of the aggregate investor payments to the fair value of the assigned ITCs, which is estimated by discounting the projected cash flow impact of the ITCs using a market interest rate and is accounted for separately (see Note 2, *Summary of Significant Accounting Policies*). We account for the remainder of the investor payments as a borrowing by recording the proceeds received as a lease pass-through financing obligation, which is repaid from the future customer lease payments and any incentive rebates. A portion of the amounts received by the investor is allocated to interest expense using the effective interest rate method.

The lease pass-through financing obligation is non-recourse once the associated solar energy systems have been placed in-service and the associated customer arrangements have been assigned to the investors. However, we are required to comply with certain financial covenants specified in the contractual agreements, which we had met as of December 31, 2019. In addition, we are responsible for any warranties, performance guarantees, accounting and performance reporting. Furthermore, we continue to account for the customer arrangements and any incentive rebates in the consolidated financial statements, regardless of whether the cash is received by us or directly by the investors.

As of December 31, 2019, the future minimum master lease payments to be received from investors, for each of the next five years and thereafter, were as follows (in millions):

2020	\$	42
2021		41
2022		33
2023		26
2024		18
Thereafter		450
Total	\$	610

For two of the lease pass-through fund arrangements, our subsidiaries have pledged its assets to the investors as security for its obligations under the contractual agreements.

Each lease pass-through fund arrangement has a one-time master lease prepayment adjustment mechanism that occurs when the capacity and the placed-in-service dates of the associated solar energy systems are finalized or on an agreed-upon date. As part of this mechanism, the master lease prepayment amount is updated, and we may be obligated to refund a portion of a master lease prepayment or entitled to receive an additional master lease prepayment. Any additional master lease prepayments are recorded as an additional lease pass-through financing obligation while any master lease prepayment refunds would reduce the lease pass-through financing obligation.

Note 19 – Defined Contribution Plan

We have a 401(k) savings plan that is intended to qualify as a deferred salary arrangement under Section 401(k) of the Internal Revenue Code. Under the 401(k) savings plan, participating employees may elect to contribute up to 100% of their eligible compensation, subject to certain limitations. Participants are fully vested in their contributions. We did not make any contributions to the 401(k) savings plan during the years ended December 31, 2019, 2018 and 2017 (other than employee deferrals of eligible compensation).

Note 20 – Related Party Transactions

Related party balances were comprised of the following (in millions):

	December 31, 2019	December 31, 2018
Convertible senior notes due to related parties	\$ 3	\$ 3

Our convertible senior notes are not re-measured at fair value (refer to Note 5, *Fair Value of Financial Instruments*). As of December 31, 2019 and 2018, the unpaid principal balance of convertible senior notes due to related parties is \$3 million.

In March 2017, our CEO purchased from us 95,420 shares of our common stock in a public offering at the public offering price for an aggregate \$5 million.

In April 2017, our CEO exercised his right under the indenture to convert all of his Zero-Coupon Convertible Senior Notes due in 2020, which had an aggregate principal amount of \$10 million. As a result, on April 26, 2017, we issued 33,333 shares of our common stock to our CEO in accordance with the specified conversion rate, and we recorded an increase to additional paid-in capital of \$10 million.

In November 2018, our CEO purchased from us 56,915 shares of our common stock in a private placement at a per share price equal to the last closing price of our stock prior to the execution of the purchase agreement for an aggregate \$20 million.

In May 2019, our CEO purchased from us 102,880 shares of our common stock in a public offering at the public offering price for an aggregate \$5 million.

Note 21 – Segment Reporting and Information about Geographic Areas

We have two operating and reportable segments: (i) automotive and (ii) energy generation and storage. The automotive segment includes the design, development, manufacturing, sales, and leasing of electric vehicles as well as sales of automotive regulatory credits. Additionally, the automotive segment is also comprised of services and other, which includes non-warranty after-sales vehicle services, sales of used vehicles, retail merchandise, sales by our acquired subsidiaries to third party customers, and vehicle insurance revenue. The energy generation and storage segment includes the design, manufacture, installation, sales, and leasing of solar energy generation and energy storage products and related services and sales of solar energy systems incentives. Our CODM does not evaluate operating segments using asset or liability information. The following table presents revenues and gross profit by reportable segment (in millions):

	Year Ended December 31,		
	2019	2018	2017
Automotive segment			
Revenues	\$ 23,047	\$ 19,906	\$ 10,643
Gross profit	\$ 3,879	\$ 3,852	\$ 1,981
Energy generation and storage segment			
Revenues	\$ 1,531	\$ 1,555	\$ 1,116
Gross profit	\$ 190	\$ 190	\$ 242

The following table presents revenues by geographic area based on the sales location of our products (in millions):

	Year Ended December 31,		
	2019	2018	2017
United States	\$ 12,653	\$ 14,872	\$ 6,221
China	2,979	1,757	2,027
Netherlands	1,590	965	331
Norway	1,201	813	823
Other	6,155	3,054	2,357
Total	<u>\$ 24,578</u>	<u>\$ 21,461</u>	<u>\$ 11,759</u>

The revenues in certain geographic areas were impacted by the price adjustments we made to our vehicle offerings during 2019. Refer to Note 2, *Summary of Significant Accounting Policies*, for details.

The following table presents long-lived assets by geographic area (in millions):

	December 31,	December 31,
	2019	2018
United States	\$ 15,644	\$ 16,741
International	890	860
Total	<u>\$ 16,534</u>	<u>\$ 17,601</u>

Note 22 – Restructuring and Other

During the year ended December 31, 2019, we carried out certain restructuring actions in order to reduce costs and improve efficiency. As a result, we recognized \$50 million of costs primarily related to employee termination expenses and losses from closing certain stores impacting both segments. We recognized \$47 million in impairment related to the IPR&D intangible asset as we abandoned further development efforts (refer to Note 4, *Goodwill and Intangible Assets* for details) and \$15 million for the related equipment within the energy generation and storage segment. We also incurred a loss of \$7 million for closing operations in certain facilities. On the statement of cash flows, the amounts were presented in the captions in which such amounts would have been recorded absent the impairment charges. The employee termination expenses were substantially paid by December 31, 2019, while the remaining amounts were non-cash.

During the year ended December 31, 2018, we carried-out certain restructuring actions in order to reduce costs and improve efficiency and recognized \$37 million of employee termination expenses and estimated losses from sub-leasing a certain facility. The employee termination cash expenses of \$27 million were substantially paid by the end of 2018, while the remaining amounts were non-cash. Also included within restructuring and other activities was \$55 million of expenses (materially all of which were non-cash) from restructuring the energy generation and storage segment, which comprised of disposals of certain tangible assets, the shortening of the useful life of a trade name intangible asset and a contract termination penalty. In addition, we concluded that a small portion of the IPR&D asset is not commercially feasible. Consequently, we recognized an impairment loss of \$13 million. We recognized settlement and legal expenses of \$30 million in the year ended December 31, 2018 for the settlement with the SEC relating to a take-private proposal for Tesla. These expenses were substantially paid by the end of 2018.

Note 23 – Quarterly Results of Operations (Unaudited)

The following table presents selected quarterly results of operations data for the years ended December 31, 2019 and 2018 (in millions, except per share amounts):

	Three Months Ended			
	March 31	June 30	September 30	December 31
2019				
Total revenues	\$ 4,541	\$ 6,350	\$ 6,303	\$ 7,384
Gross profit	\$ 566	\$ 921	\$ 1,191	\$ 1,391
Net (loss) income attributable to common stockholders	\$ (702)	\$ (408)	\$ 143	\$ 105
Net (loss) income per share of common stock attributable to common stockholders, basic	\$ (4.10)	\$ (2.31)	\$ 0.80	\$ 0.58
Net (loss) income per share of common stock attributable to common stockholders, diluted	\$ (4.10)	\$ (2.31)	\$ 0.78	\$ 0.56
2018				
Total revenues	\$ 3,409	\$ 4,002	\$ 6,824	\$ 7,226
Gross profit	\$ 456	\$ 619	\$ 1,524	\$ 1,443
Net (loss) income attributable to common stockholders	\$ (709)	\$ (718)	\$ 311	\$ 140
Net (loss) income per share of common stock attributable to common stockholders, basic	\$ (4.19)	\$ (4.22)	\$ 1.82	\$ 0.81
Net (loss) income per share of common stock attributable to common stockholders, diluted	\$ (4.19)	\$ (4.22)	\$ 1.75	\$ 0.78

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES*Evaluation of Disclosure Controls and Procedures*

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”). In designing and evaluating the disclosure controls and procedures, our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that our management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that, as of December 31, 2019, our disclosure controls and procedures were designed at a reasonable assurance level and were effective to provide reasonable assurance that the information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures.

Management’s Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed by, or under the supervision of, our Chief Executive Officer and Chief Financial Officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that (1) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). Our management concluded that our internal control over financial reporting was effective as of December 31, 2019.

Our independent registered public accounting firm, PricewaterhouseCoopers LLP, has audited the effectiveness of our internal control over financial reporting as of December 31, 2019, as stated in their report which is included herein.

Limitations on the Effectiveness of Controls

Because of inherent limitations, internal control over financial reporting may not prevent or detect misstatements and projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting that occurred during the fourth fiscal quarter of the year ended December 31, 2019, which has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this Item 10 of Form 10-K will be included in our 2020 Proxy Statement to be filed with the Securities and Exchange Commission in connection with the solicitation of proxies for our 2020 Annual Meeting of Stockholders and is incorporated herein by reference. The 2020 Proxy Statement will be filed with the Securities and Exchange Commission within 120 days after the end of the fiscal year to which this report relates.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item 11 of Form 10-K will be included in our 2020 Proxy Statement and is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this Item 12 of Form 10-K will be included in our 2020 Proxy Statement and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information required by this Item 13 of Form 10-K will be included in our 2020 Proxy Statement and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this Item 14 of Form 10-K will be included in our 2020 Proxy Statement and is incorporated herein by reference.

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

1. Financial statements (see *Index to Consolidated Financial Statements* in Part II, Item 8 of this report)
2. All financial statement schedules have been omitted since the required information was not applicable or was not present in amounts sufficient to require submission of the schedules, or because the information required is included in the consolidated financial statements or the accompanying notes
3. The exhibits listed in the following *Index to Exhibits* are filed or incorporated by reference as part of this report

INDEX TO EXHIBITS

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
3.1	<u>Amended and Restated Certificate of Incorporation of the Registrant.</u>	10-K	001-34756	3.1	March 1, 2017	
3.2	<u>Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Registrant.</u>	10-K	001-34756	3.2	March 1, 2017	
3.3	<u>Amended and Restated Bylaws of the Registrant.</u>	8-K	001-34756	3.2	February 1, 2017	
4.1	<u>Specimen common stock certificate of the Registrant.</u>	10-K	001-34756	4.1	March 1, 2017	
4.2	<u>Fifth Amended and Restated Investors' Rights Agreement, dated as of August 31, 2009, between Registrant and certain holders of the Registrant's capital stock named therein.</u>	S-1	333-164593	4.2	January 29, 2010	
4.3	<u>Amendment to Fifth Amended and Restated Investors' Rights Agreement, dated as of May 20, 2010, between Registrant and certain holders of the Registrant's capital stock named therein.</u>	S-1/A	333-164593	4.2A	May 27, 2010	
4.4	<u>Amendment to Fifth Amended and Restated Investors' Rights Agreement between Registrant, Toyota Motor Corporation and certain holders of the Registrant's capital stock named therein.</u>	S-1/A	333-164593	4.2B	May 27, 2010	
4.5	<u>Amendment to Fifth Amended and Restated Investor's Rights Agreement, dated as of June 14, 2010, between Registrant and certain holders of the Registrant's capital stock named therein.</u>	S-1/A	333-164593	4.2C	June 15, 2010	
4.6	<u>Amendment to Fifth Amended and Restated Investor's Rights Agreement, dated as of November 2, 2010, between Registrant and certain holders of the Registrant's capital stock named therein.</u>	8-K	001-34756	4.1	November 4, 2010	
4.7	<u>Waiver to Fifth Amended and Restated Investor's Rights Agreement, dated as of May 22, 2011, between Registrant and certain holders of the Registrant's capital stock named therein.</u>	S-1/A	333-174466	4.2E	June 2, 2011	
4.8	<u>Amendment to Fifth Amended and Restated Investor's Rights Agreement, dated as of May 30, 2011, between Registrant and certain holders of the Registrant's capital stock named therein.</u>	8-K	001-34756	4.1	June 1, 2011	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
4.9	<u>Sixth Amendment to Fifth Amended and Restated Investors' Rights Agreement, dated as of May 15, 2013 among the Registrant, the Elon Musk Revocable Trust dated July 22, 2003 and certain other holders of the capital stock of the Registrant named therein.</u>	8-K	001-34756	4.1	May 20, 2013	
4.10	<u>Waiver to Fifth Amended and Restated Investor's Rights Agreement, dated as of May 14, 2013, between the Registrant and certain holders of the capital stock of the Registrant named therein.</u>	8-K	001-34756	4.2	May 20, 2013	
4.11	<u>Waiver to Fifth Amended and Restated Investor's Rights Agreement, dated as of August 13, 2015, between the Registrant and certain holders of the capital stock of the Registrant named therein.</u>	8-K	001-34756	4.1	August 19, 2015	
4.12	<u>Waiver to Fifth Amended and Restated Investors' Rights Agreement, dated as of May 18, 2016, between the Registrant and certain holders of the capital stock of the Registrant named therein.</u>	8-K	001-34756	4.1	May 24, 2016	
4.13	<u>Waiver to Fifth Amended and Restated Investors' Rights Agreement, dated as of March 15, 2017, between the Registrant and certain holders of the capital stock of the Registrant named therein.</u>	8-K	001-34756	4.1	March 17, 2017	
4.14	<u>Waiver to Fifth Amended and Restated Investors' Rights Agreement, dated as of May 1, 2019, between the Registrant and certain holders of the capital stock of the Registrant named therein.</u>	8-K	001-34756	4.1	May 3, 2019	
4.15	<u>Indenture, dated as of May 22, 2013, by and between the Registrant and U.S. Bank National Association.</u>	8-K	001-34756	4.1	May 22, 2013	
4.16	<u>Third Supplemental Indenture, dated as of March 5, 2014, by and between the Registrant and U.S. Bank National Association.</u>	8-K	001-34756	4.4	March 5, 2014	
4.17	<u>Form of 1.25% Convertible Senior Note Due March 1, 2021 (included in Exhibit 4.19).</u>	8-K	001-34756	4.4	March 5, 2014	
4.18	<u>Fourth Supplemental Indenture, dated as of March 22, 2017, by and between the Registrant and U.S. Bank National Association.</u>	8-K	001-34756	4.2	March 22, 2017	
4.19	<u>Form of 2.375% Convertible Senior Note Due March 15, 2022 (included in Exhibit 4.21).</u>	8-K	001-34756	4.2	March 22, 2017	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
4.20	Indenture, dated as of August 18, 2017, by and among the Registrant, SolarCity, and U.S. Bank National Association, as trustee.	8-K	001-34756	4.1	August 23, 2017	
4.21	Form of 5.30% Senior Note due August 15, 2025.	8-K	001-34756	4.2	August 23, 2017	
4.22	Indenture, dated as of September 30, 2014, between SolarCity and Wells Fargo Bank, National Association	8-K(1)	001-35758	4.1	October 6, 2014	
4.23	First Supplemental Indenture, dated as of November 21, 2016, between SolarCity and Wells Fargo Bank, National Association, as trustee to the Indenture, dated as of September 30, 2014, between SolarCity and Wells Fargo Bank, National Association, as trustee.	8-K	001-34756	4.2	November 21, 2016	
4.24	Indenture, dated as of December 7, 2015, between SolarCity and Wells Fargo Bank, National Association	8-K(1)	001-35758	4.1	December 7, 2015	
4.25	First Supplemental Indenture, dated as of November 21, 2016, between SolarCity and Wells Fargo Bank, National Association, as trustee to the Indenture, dated as of December 7, 2015, between SolarCity and Wells Fargo Bank, National Association, as trustee.	8-K	001-34756	4.3	November 21, 2016	
4.26	Indenture, dated as of October 15, 2014, between SolarCity and U.S. Bank National Association, as trustee.	S-3ASR(1)	333-199321	4.1	October 15, 2014	
4.27	Fifth Supplemental Indenture, dated as of May 7, 2019, by and between Registrant and U.S. Bank National Association, related to 2.00% Convertible Senior Notes due May 15, 2024.	8-K	001-34756	4.2	May 8, 2019	
4.28	Form of 2.00% Convertible Senior Notes due May 15, 2024 (included in Exhibit 4.27).	8-K	001-34756	4.3	May 8, 2019	
4.29	Fourth Supplemental Indenture, dated as of October 15, 2014, by and between SolarCity and the Trustee, related to SolarCity's 4.00% Solar Bonds, Series 2014/4-7.	8-K(1)	001-35758	4.5	October 15, 2014	
4.30	Eighth Supplemental Indenture, dated as of January 29, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.00% Solar Bonds, Series 2015/4-7.	8-K(1)	001-35758	4.5	January 29, 2015	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
4.31	<u>Ninth Supplemental Indenture, dated as of March 9, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.00% Solar Bonds, Series 2015/5-5.</u>	8-K(1)	001-35758	4.2	March 9, 2015	
4.32	<u>Tenth Supplemental Indenture, dated as of March 9, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.00% Solar Bonds, Series 2015/6-10.</u>	8-K(1)	001-35758	4.3	March 9, 2015	
4.33	<u>Eleventh Supplemental Indenture, dated as of March 9, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.75% Solar Bonds, Series 2015/7-15.</u>	8-K(1)	001-35758	4.4	March 9, 2015	
4.34	<u>Fourteenth Supplemental Indenture, dated as of March 19, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C3-5.</u>	8-K(1)	001-35758	4.4	March 19, 2015	
4.35	<u>Fifteenth Supplemental Indenture, dated as of March 19, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C4-10.</u>	8-K(1)	001-35758	4.5	March 19, 2015	
4.36	<u>Sixteenth Supplemental Indenture, dated as of March 19, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C5-15.</u>	8-K(1)	001-35758	4.6	March 19, 2015	
4.37	<u>Nineteenth Supplemental Indenture, dated as of March 26, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C8-5.</u>	8-K(1)	001-35758	4.4	March 26, 2015	
4.38	<u>Twentieth Supplemental Indenture, dated as of March 26, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C9-10.</u>	8-K(1)	001-35758	4.5	March 26, 2015	
4.39	<u>Twenty-First Supplemental Indenture, dated as of March 26, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C10-15.</u>	8-K(1)	001-35758	4.6	March 26, 2015	
4.40	<u>Twenty-Fifth Supplemental Indenture, dated as of April 2, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C13-5.</u>	8-K(1)	001-35758	4.4	April 2, 2015	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
4.41	<u>Twenty-Sixth Supplemental Indenture, dated as of April 2, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C14-10.</u>	8-K(1)	001-35758	4.5	April 2, 2015	
4.42	<u>Twenty-Ninth Supplemental Indenture, dated as of April 9, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C18-5.</u>	8-K(1)	001-35758	4.4	April 9, 2015	
4.43	<u>Thirtieth Supplemental Indenture, dated as of April 9, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C19-10.</u>	8-K(1)	001-35758	4.5	April 9, 2015	
4.44	<u>Thirty-First Supplemental Indenture, dated as of April 9, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C20-15.</u>	8-K(1)	001-35758	4.6	April 9, 2015	
4.45	<u>Thirty-Fourth Supplemental Indenture, dated as of April 14, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C23-5.</u>	8-K(1)	001-35758	4.4	April 14, 2015	
4.46	<u>Thirty-Fifth Supplemental Indenture, dated as of April 14, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C24-10.</u>	8-K(1)	001-35758	4.5	April 14, 2015	
4.47	<u>Thirty-Sixth Supplemental Indenture, dated as of April 14, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C25-15.</u>	8-K(1)	001-35758	4.6	April 14, 2015	
4.48	<u>Thirty-Eighth Supplemental Indenture, dated as of April 21, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C27-10.</u>	8-K(1)	001-35758	4.3	April 21, 2015	
4.49	<u>Thirty-Ninth Supplemental Indenture, dated as of April 21, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C28-15.</u>	8-K(1)	001-35758	4.4	April 21, 2015	
4.50	<u>Forty-Second Supplemental Indenture, dated as of April 27, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C31-5.</u>	8-K(1)	001-35758	4.4	April 27, 2015	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
4.51	<u>Forty-Third Supplemental Indenture, dated as of April 27, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C32-10.</u>	8-K(1)	001-35758	4.5	April 27, 2015	
4.52	<u>Forty-Fourth Supplemental Indenture, dated as of April 27, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C33-15.</u>	8-K(1)	001-35758	4.6	April 27, 2015	
4.53	<u>Forty-Seventh Supplemental Indenture, dated as of May 1, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.00% Solar Bonds, Series 2015/11-5.</u>	8-K(1)	001-35758	4.4	May 1, 2015	
4.54	<u>Forty-Eighth Supplemental Indenture, dated as of May 1, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.00% Solar Bonds, Series 2015/12-10.</u>	8-K(1)	001-35758	4.5	May 1, 2015	
4.55	<u>Forty-Ninth Supplemental Indenture, dated as of May 1, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.75% Solar Bonds, Series 2015/13-15.</u>	8-K(1)	001-35758	4.6	May 1, 2015	
4.56	<u>Fifty-First Supplemental Indenture, dated as of May 11, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C35-5.</u>	8-K(1)	001-35758	4.3	May 11, 2015	
4.57	<u>Fifty-Second Supplemental Indenture, dated as of May 11, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C36-10.</u>	8-K(1)	001-35758	4.4	May 11, 2015	
4.58	<u>Fifty-Third Supplemental Indenture, dated as of May 11, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C37-15.</u>	8-K(1)	001-35758	4.5	May 11, 2015	
4.59	<u>Fifty-Sixth Supplemental Indenture, dated as of May 18, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C39-5.</u>	8-K(1)	001-35758	4.3	May 18, 2015	
4.60	<u>Fifty-Seventh Supplemental Indenture, dated as of May 18, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C40-10.</u>	8-K(1)	001-35758	4.4	May 18, 2015	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
4.61	<u>Fifty-Eighth Supplemental Indenture, dated as of May 18, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C41-15.</u>	8-K(1)	001-35758	4.5	May 18, 2015	
4.62	<u>Sixtieth Supplemental Indenture, dated as of May 26, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C43-5.</u>	8-K(1)	001-35758	4.3	May 26, 2015	
4.63	<u>Sixty-First Supplemental Indenture, dated as of May 26, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C44-10.</u>	8-K(1)	001-35758	4.4	May 26, 2015	
4.64	<u>Sixty-Second Supplemental Indenture, dated as of May 26, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C45-15.</u>	8-K(1)	001-35758	4.5	May 26, 2015	
4.65	<u>Sixty-Fifth Supplemental Indenture, dated as of June 8, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C47-5.</u>	8-K(1)	001-35758	4.3	June 10, 2015	
4.66	<u>Sixty-Seventh Supplemental Indenture, dated as of June 8, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C49-15.</u>	8-K(1)	001-35758	4.5	June 10, 2015	
4.67	<u>Seventieth Supplemental Indenture, dated as of June 16, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C52-10.</u>	8-K(1)	001-35758	4.4	June 16, 2015	
4.68	<u>Seventy-First Supplemental Indenture, dated as of June 16, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C53-15.</u>	8-K(1)	001-35758	4.5	June 16, 2015	
4.69	<u>Seventy-Fourth Supplemental Indenture, dated as of June 22, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C56-10.</u>	8-K(1)	001-35758	4.4	June 23, 2015	
4.70	<u>Seventy-Fifth Supplemental Indenture, dated as of June 22, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C57-15.</u>	8-K(1)	001-35758	4.5	June 23, 2015	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
4.71	<u>Seventy-Ninth Supplemental Indenture, dated as of June 29, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C60-5.</u>	8-K(1)	001-35758	4.4	June 29, 2015	
4.72	<u>Eightieth Supplemental Indenture, dated as of June 29, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C61-10.</u>	8-K(1)	001-35758	4.5	June 29, 2015	
4.73	<u>Eighty-First Supplemental Indenture, dated as of June 29, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C62-15.</u>	8-K(1)	001-35758	4.6	June 29, 2015	
4.74	<u>Eighty-Fourth Supplemental Indenture, dated as of July 14, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C65-5.</u>	8-K(1)	001-35758	4.4	July 14, 2015	
4.75	<u>Eighty-Sixth Supplemental Indenture, dated as of July 14, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C67-15.</u>	8-K(1)	001-35758	4.6	July 14, 2015	
4.76	<u>Eighty-Ninth Supplemental Indenture, dated as of July 20, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C70-5.</u>	8-K(1)	001-35758	4.4	July 21, 2015	
4.77	<u>Ninetieth Supplemental Indenture, dated as of July 20, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C71-10.</u>	8-K(1)	001-35758	4.5	July 21, 2015	
4.78	<u>Ninety-First Supplemental Indenture, dated as of July 20, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C72-15.</u>	8-K(1)	001-35758	4.6	July 21, 2015	
4.79	<u>Ninety-Fourth Supplemental Indenture, dated as of July 31, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.00% Solar Bonds, Series 2015/19-5.</u>	8-K(1)	001-35758	4.4	July 31, 2015	
4.80	<u>Ninety-Fifth Supplemental Indenture, dated as of July 31, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.00% Solar Bonds, Series 2015/20-10.</u>	8-K(1)	001-35758	4.5	July 31, 2015	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
4.81	<u>Ninety-Sixth Supplemental Indenture, dated as of July 31, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.75% Solar Bonds, Series 2015/21-15.</u>	8-K(1)	001-35758	4.6	July 31, 2015	
4.82	<u>Ninety-Ninth Supplemental Indenture, dated as of August 3, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C75-5.</u>	8-K(1)	001-35758	4.4	August 3, 2015	
4.83	<u>One Hundred-and-Fifth Supplemental Indenture, dated as of August 10, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C81-10.</u>	8-K(1)	001-35758	4.5	August 10, 2015	
4.84	<u>One Hundred-and-Ninth Supplemental Indenture, dated as of August 17, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C85-5.</u>	8-K(1)	001-35758	4.4	August 17, 2015	
4.85	<u>One Hundred-and-Eleventh Supplemental Indenture, dated as of August 17, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C87-15.</u>	8-K(1)	001-35758	4.6	August 17, 2015	
4.86	<u>One Hundred-and-Fourteenth Supplemental Indenture, dated as of August 24, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C90-5.</u>	8-K(1)	001-35758	4.4	August 24, 2015	
4.87	<u>One Hundred-and-Sixteenth Supplemental Indenture, dated as of August 24, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C92-15.</u>	8-K(1)	001-35758	4.6	August 24, 2015	
4.88	<u>One Hundred-and-Nineteenth Supplemental Indenture, dated as of August 31, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C95-5.</u>	8-K(1)	001-35758	4.4	August 31, 2015	
4.89	<u>One Hundred-and-Twenty-First Supplemental Indenture, dated as of August 31, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C97-15.</u>	8-K(1)	001-35758	4.6	August 31, 2015	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
4.90	<u>One Hundred-and-Twenty-Seventh Supplemental Indenture, dated as of September 14, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C100-5.</u>	8-K(1)	001-35758	4.4	September 15, 2015	
4.91	<u>One Hundred-and-Twenty-Eighth Supplemental Indenture, dated as of September 14, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C101-10.</u>	8-K(1)	001-35758	4.5	September 15, 2015	
4.92	<u>One Hundred-and-Twenty-Ninth Supplemental Indenture, dated as of September 14, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C102-15.</u>	8-K(1)	001-35758	4.6	September 15, 2015	
4.93	<u>One Hundred-and-Thirty-Second Supplemental Indenture, dated as of September 28, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C105-5.</u>	8-K(1)	001-35758	4.4	September 29, 2015	
4.94	<u>One Hundred-and-Thirty-Third Supplemental Indenture, dated as of September 28, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C106-10.</u>	8-K(1)	001-35758	4.5	September 29, 2015	
4.95	<u>One Hundred-and-Thirty-Fourth Supplemental Indenture, dated as of September 28, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C107-15.</u>	8-K(1)	001-35758	4.6	September 29, 2015	
4.96	<u>One Hundred-and-Thirty-Seventh Supplemental Indenture, dated as of October 13, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C110-5.</u>	8-K(1)	001-35758	4.4	October 13, 2015	
4.97	<u>One Hundred-and-Thirty-Eighth Supplemental Indenture, dated as of October 13, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C111-10.</u>	8-K(1)	001-35758	4.5	October 13, 2015	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
4.98	<u>One Hundred-and-Forty-Second Supplemental Indenture, dated as of October 30, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.00% Solar Bonds, Series 2015/24-5.</u>	8-K(1)	001-35758	4.4	October 30, 2015	
4.99	<u>One Hundred-and-Forty-Third Supplemental Indenture, dated as of October 30, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.00% Solar Bonds, Series 2015/25-10.</u>	8-K(1)	001-35758	4.5	October 30, 2015	
4.100	<u>One Hundred-and-Forty-Fourth Supplemental Indenture, dated as of October 30, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.75% Solar Bonds, Series 2015/26-15.</u>	8-K(1)	001-35758	4.6	October 30, 2015	
4.101	<u>One Hundred-and-Forty-Seventh Supplemental Indenture, dated as of November 4, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C115-5.</u>	8-K(1)	001-35758	4.4	November 4, 2015	
4.102	<u>One Hundred-and-Forty-Eighth Supplemental Indenture, dated as of November 4, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C116-10.</u>	8-K(1)	001-35758	4.5	November 4, 2015	
4.103	<u>One Hundred-and-Fifty-Third Supplemental Indenture, dated as of November 16, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C121-10.</u>	8-K(1)	001-35758	4.5	November 17, 2015	
4.104	<u>One Hundred-and-Fifty-Fourth Supplemental Indenture, dated as of November 16, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C122-15.</u>	8-K(1)	001-35758	4.6	November 17, 2015	
4.105	<u>One Hundred-and-Fifty-Eighth Supplemental Indenture, dated as of November 30, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C126-10.</u>	8-K(1)	001-35758	4.5	November 30, 2015	

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	File No.	Exhibit	
4.106	<u>One Hundred-and-Fifty-Ninth Supplemental Indenture, dated as of November 30, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C127-15.</u>	8-K(1)	001-35758	4.6	November 30, 2015
4.107	<u>One Hundred-and-Sixty-Second Supplemental Indenture, dated as of December 14, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C130-5.</u>	8-K(1)	001-35758	4.4	December 14, 2015
4.058	<u>One Hundred-and-Sixty-Third Supplemental Indenture, dated as of December 14, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C131-10.</u>	8-K(1)	001-35758	4.5	December 14, 2015
4.109	<u>One Hundred-and-Sixty-Fourth Supplemental Indenture, dated as of December 14, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C132-15.</u>	8-K(1)	001-35758	4.6	December 14, 2015
4.110	<u>One Hundred-and-Sixty-Seventh Supplemental Indenture, dated as of December 28, 2015, by and between SolarCity and the Trustee, related to SolarCity's 3.60% Solar Bonds, Series 2015/C135-5.</u>	8-K(1)	001-35758	4.4	December 28, 2015
4.111	<u>One Hundred-and-Sixty-Eighth Supplemental Indenture, dated as of December 28, 2015, by and between SolarCity and the Trustee, related to SolarCity's 4.70% Solar Bonds, Series 2015/C136-10.</u>	8-K(1)	001-35758	4.5	December 28, 2015
4.112	<u>One Hundred-and-Sixty-Ninth Supplemental Indenture, dated as of December 28, 2015, by and between SolarCity and the Trustee, related to SolarCity's 5.45% Solar Bonds, Series 2015/C137-15.</u>	8-K(1)	001-35758	4.6	December 28, 2015
4.113	<u>One Hundred-and-Seventy-Second Supplemental Indenture, dated as of January 29, 2016, by and between SolarCity and the Trustee, related to SolarCity's 4.00% Solar Bonds, Series 2016/3-5.</u>	8-K(1)	001-35758	4.4	January 29, 2016

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
4.114	One Hundred-and-Seventy-Third Supplemental Indenture, dated as of January 29, 2016, by and between SolarCity and the Trustee, related to SolarCity's 5.00% Solar Bonds, Series 2016/4-10.	8-K(1)	001-35758	4.5	January 29, 2016	
4.115	One Hundred-and-Seventy-Fourth Supplemental Indenture, dated as of January 29, 2016, by and between SolarCity and the Trustee, related to SolarCity's 5.75% Solar Bonds, Series 2016/5-15.	8-K(1)	001-35758	4.6	January 29, 2016	
4.116	One Hundred-and-Seventy-Seventh Supplemental Indenture, dated as of February 26, 2016, by and between SolarCity and the Trustee, related to SolarCity's 5.25% Solar Bonds, Series 2016/8-5.	8-K(1)	001-35758	4.4	February 26, 2016	
4.117	One Hundred-and-Seventy-Ninth Supplemental Indenture, dated as of March 21, 2016, by and between SolarCity and the Trustee, related to SolarCity's 5.25% Solar Bonds, Series 2016/10-5.	8-K(1)	001-35758	4.3	March 21, 2016	
4.118	One Hundred-and-Eighty-First Supplemental Indenture, dated as of June 10, 2016, by and between SolarCity and the Trustee, related to SolarCity's 5.25% Solar Bonds, Series 2016/12-5.	8-K(1)	001-35758	4.3	June 10, 2016	
4.119	Description of Registrant's Securities	—	—	—	—	X
10.1**	Form of Indemnification Agreement between the Registrant and its directors and officers.	S-1/A	333-164593	10.1	June 15, 2010	
10.2**	2003 Equity Incentive Plan.	S-1/A	333-164593	10.2	May 27, 2010	
10.3**	Form of Stock Option Agreement under 2003 Equity Incentive Plan.	S-1	333-164593	10.3	January 29, 2010	
10.4**	Amended and Restated 2010 Equity Incentive Plan.	10-K	001-34756	10.4	February 23, 2018	
10.5**	Form of Stock Option Agreement under 2010 Equity Incentive Plan.	10-K	001-34756	10.6	March 1, 2017	
10.6**	Form of Restricted Stock Unit Award Agreement under 2010 Equity Incentive Plan.	10-K	001-34756	10.7	March 1, 2017	
10.7**	Amended and Restated 2010 Employee Stock Purchase Plan, effective as of February 1, 2017.	10-K	001-34756	10.8	March 1, 2017	
10.8**	2019 Equity Incentive Plan.	S-8	333-232079	4.2	June 12, 2019	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.9**	Form of Stock Option Agreement under 2019 Equity Incentive Plan.	S-8	333-232079	4.3	June 12, 2019	
10.10**	Form of Restricted Stock Unit Award Agreement under 2019 Equity Incentive Plan.	S-8	333-232079	4.4	June 12, 2019	
10.11**	Employee Stock Purchase Plan, effective as of June 12, 2019.	S-8	333-232079	4.5	June 12, 2019	
10.12**	2007 SolarCity Stock Plan and form of agreements used thereunder.	S-1(1)	333-184317	10.2	October 5, 2012	
10.13**	2012 SolarCity Equity Incentive Plan and form of agreements used thereunder.	S-1(1)	333-184317	10.3	October 5, 2012	
10.14**	2010 Zep Solar, Inc. Equity Incentive Plan and form of agreements used thereunder.	S-8(1)	333-192996	4.5	December 20, 2013	
10.15**	Offer Letter between the Registrant and Elon Musk dated October 13, 2008.	S-1	333-164593	10.9	January 29, 2010	
10.16**	Performance Stock Option Agreement between the Registrant and Elon Musk dated January 21, 2018.	DEF 14A	001-34756	Appendix A	February 8, 2018	
10.17	Indemnification Agreement, dated as of February 27, 2014, by and between the Registrant and J.P. Morgan Securities LLC.	8-K	001-34756	10.1	March 5, 2014	
10.18	Form of Call Option Confirmation relating to 0.25% Convertible Senior Notes Due March 1, 2019.	8-K	001-34756	10.2	March 5, 2014	
10.19	Form of Call Option Confirmation relating to 1.25% Convertible Senior Notes Due March 1, 2021.	8-K	001-34756	10.3	March 5, 2014	
10.20	Form of Warrant Confirmation relating to 0.25% Convertible Senior Notes Due March 1, 2019.	8-K	001-34756	10.4	March 5, 2014	
10.21	Form of Warrant Confirmation relating to 1.25% Convertible Senior Notes Due March 1, 2021.	8-K	001-34756	10.5	March 5, 2014	
10.22	Form of Call Option Confirmation relating to 2.375% Convertible Notes due March 15, 2022.	8-K	001-34756	10.1	March 22, 2017	
10.23	Form of Warrant Confirmation relating to 2.375% Convertible Notes due March 15, 2022.	8-K	001-34756	10.2	March 22, 2017	
10.24	Form of Call Option Confirmation relating to 2.00% Convertible Senior Notes due May 15, 2024.	8-K	001-34756	10.1	May 3, 2019	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.25	Form of Warrant Confirmation relating to 2.00% Convertible Senior Notes due May 15, 2024.	8-K	001-34756	10.2	May 3, 2019	
10.26†	Supply Agreement between Panasonic Corporation and the Registrant dated October 5, 2011.	10-K	-001-34756	10.50	February 27, 2012	
10.27†	Amendment No. 1 to Supply Agreement between Panasonic Corporation and the Registrant dated October 29, 2013.	10-K	001-34756	10.35A	February 26, 2014	
10.28	Agreement between Panasonic Corporation and the Registrant dated July 31, 2014.	10-Q	001-34756	10.1	November 7, 2014	
10.29†	General Terms and Conditions between Panasonic Corporation and the Registrant dated October 1, 2014.	8-K	001-34756	10.2	October 11, 2016	
10.30	Letter Agreement, dated as of February 24, 2015, regarding addition of co-party to General Terms and Conditions, Production Pricing Agreement and Investment Letter Agreement between Panasonic Corporation and the Registrant.	10-K	001-34756	10.25A	February 24, 2016	
10.31†	Amendment to Gigafactory General Terms, dated March 1, 2016, by and among the Registrant, Panasonic Corporation and Panasonic Energy Corporation of North America.	8-K	001-34756	10.1	October 11, 2016	
10.32†	Production Pricing Agreement between Panasonic Corporation and the Registrant dated October 1, 2014.	10-Q	001-34756	10.3	November 7, 2014	
10.33†	Investment Letter Agreement between Panasonic Corporation and the Registrant dated October 1, 2014.	10-Q	001-34756	10.4	November 7, 2014	
10.34	Amendment to Gigafactory Documents, dated April 5, 2016, by and among the Registrant, Panasonic Corporation, Panasonic Corporation of North America and Panasonic Energy Corporation of North America.	10-Q	001-34756	10.2	May 10, 2016	
10.35††	2019 Pricing Agreement (2170 Cells) with respect to 2014 Gigafactory Agreements, executed September 20, 2019, by and among the Registrant, Tesla Motors Netherlands B.V., Panasonic Corporation and Panasonic Corporation of North America, on behalf of its division Panasonic Energy Corporation of North America.	10-Q	001-34756	10.5	October 29, 2019	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.36††	2019 Pricing Agreement (Japan Cells) with respect to 2011 Supply Agreement, executed September 20, 2019, by and among the Registrant, Tesla Motors Netherlands B.V., Panasonic Corporation and SANYO Electric Co., Ltd.	10-Q	001-34756	10.6	October 29, 2019	
10.37††	Amended and Restated Factory Lease, executed as of March 26, 2019, by and between Tesla, Inc. and Panasonic Energy North America, a division of Panasonic Corporation of North America, as tenant.	10-Q	001-34756	10.3	July 29, 2019	
10.38††	Lease Amendment, executed September 20, 2019, by and among the Registrant, Panasonic Corporation of North America, on behalf of its division Panasonic Energy of North America, with respect to the Amended and Restated Factory Lease, executed as of March 26, 2019.	10-Q	001-34756	10.7	October 29, 2019	
10.39	ABL Credit Agreement, dated as of June 10, 2015, by and among the Registrant, Tesla Motors Netherlands B.V., certain of the Registrant's and Tesla Motors Netherlands B.V.'s direct or indirect subsidiaries from time to time party thereto, as borrowers, Wells Fargo Bank, National Association, as documentation agent, JPMorgan Chase Bank, N.A., Goldman Sachs Bank USA, Morgan Stanley Senior Funding Inc. and Bank of America, N.A., as syndication agents, the lenders from time to time party thereto, and Deutsche Bank AG New York Branch, as administrative agent and collateral agent.	8-K	001-34756	10.1	June 12, 2015	
10.40	First Amendment, dated as of November 3, 2015, to ABL Credit Agreement, dated as of June 10, 2015, by and among the Registrant, Tesla Motors Netherlands B.V., certain of the Registrant's and Tesla Motors Netherlands B.V.'s direct or indirect subsidiaries from time to time party thereto, as borrowers, and the documentation agent, syndication agents, administrative agent, collateral agent and lenders from time to time party thereto.	10-Q	001-34756	10.1	November 5, 2015	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.41	<u>Second Amendment, dated as of December 31, 2015, to ABL Credit Agreement, dated as of June 10, 2015, by and among the Registrant, Tesla Motors Netherlands B.V., certain of the Registrant's and Tesla Motors Netherlands B.V.'s direct or indirect subsidiaries from time to time party thereto, as borrowers, and the documentation agent, syndication agents, administrative agent, collateral agent and lenders from time to time party thereto.</u>	10-K	001-34756	10.28B	February 24, 2016	
10.42	<u>Third Amendment, dated as of February 9, 2016, to ABL Credit Agreement, dated as of June 10, 2015, by and among the Registrant, Tesla Motors Netherlands B.V., certain of the Registrant's and Tesla Motors Netherlands B.V.'s direct or indirect subsidiaries from time to time party thereto, as borrowers, and the documentation agent, syndication agents, administrative agent, collateral agent and lenders from time to time party thereto.</u>	10-K	001-34756	10.28C	February 24, 2016	
10.43	<u>Fourth Amendment to Credit Agreement, dated as of July 31, 2016, by and among the Registrant, Tesla Motors Netherlands B.V., the lenders party thereto and Deutsche Bank AG New York Branch, as administrative agent and collateral agent.</u>	8-K	001-34756	10.1	August 1, 2016	
10.44	<u>Fifth Amendment to Credit Agreement, dated as of December 15, 2016, among the Registrant, Tesla Motors Netherlands B.V., the lenders party thereto and Deutsche Bank AG, New York Branch, as administrative agent and collateral agent.</u>	8-K	001-34756	10.1	December 20, 2016	
10.45	<u>Sixth Amendment to Credit Agreement, dated as of June 19, 2017, among the Registrant, Tesla Motors Netherlands B.V., the lenders party thereto and Deutsche Bank AG, New York Branch, as administrative agent and collateral agent.</u>	10-Q	001-34756	10.1	August 4, 2017	
10.46	<u>Seventh Amendment to the ABL Credit Agreement, dated as of August 11, 2017, by and among the Registrant, Tesla Motors Netherlands B.V., Deutsche Bank AG New York Branch, as administrative agent and collateral agent, and the other agents party thereto.</u>	8-K	001-34756	10.2	August 23, 2017	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.47	<u>Eighth Amendment to the ABL Credit Agreement, dated as of March 12, 2018, by and among the Registrant, Tesla Motors Netherlands B.V., Deutsche Bank AG New York Branch, as administrative agent and collateral agent, and the other agents party thereto.</u>	10-Q	001-34756	10.2	May 7, 2018	
10.48	<u>Ninth Amendment to the ABL Credit Agreement, dated as of May 3, 2018, by and among the Registrant, Tesla Motors Netherlands B.V., Deutsche Bank AG New York Branch, as administrative agent and collateral agent, and the other agents party thereto.</u>	10-Q	001-34756	10.3	May 7, 2018	
10.49	<u>Tenth Amendment to the ABL Credit Agreement, dated as of December 10, 2018, by and among the Registrant, Tesla Motors Netherlands B.V., Deutsche Bank AG New York Branch, as administrative agent and collateral agent, and the other agents party thereto.</u>	10-K	001-34756	10.41	February 19, 2019	
10.50	<u>Amendment and Restatement in respect of ABL Credit Agreement, dated as of March 6, 2019, by and among certain of the Registrant's and Tesla Motors Netherlands B.V.'s direct or indirect subsidiaries from time to time party thereto, as borrowers, Wells Fargo Bank, National Association, as documentation agent, JPMorgan Chase Bank, N.A., Goldman Sachs Bank USA, Morgan Stanley Senior Funding Inc. and Bank of America, N.A., as syndication agents, the lenders from time to time party thereto, and Deutsche Bank AG New York Branch, as administrative agent and collateral agent.</u>	S-4/A	3 33-229749	10.68	April 3, 2019	
10.51	<u>Eleventh Amendment to Credit Agreement, dated as of February 1, 2019, in respect of the ABL Credit Agreement, dated as of June 10, 2015, among Tesla, Inc., Tesla Motors Netherlands B.V., the lenders from time to time party thereto, Deutsche Bank AG New York Branch, as administrative agent and collateral agent and as Collateral Agent, and the other agent parties thereto.</u>	10-Q	001-34756	10.1	April 29, 2019	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.52†	<u>Agreement for Tax Abatement and Incentives, dated as of May 7, 2015, by and between Tesla Motors, Inc. and the State of Nevada, acting by and through the Nevada Governor's Office of Economic Development.</u>	10-Q	001-34756	10.1	August 7, 2015	
10.53†	<u>Amended and Restated Loan and Security Agreement, dated as of August 17, 2017, by and among Tesla 2014 Warehouse SPV LLC, Tesla Finance LLC, the Lenders and Group Agents from time to time party thereto, and Deutsche Bank AG, New York Branch, as Administrative Agent.</u>	10-Q	001-34756	10.3	November 3, 2017	
10.54†	<u>Amendment No. 1 to Amended and Restated Loan and Security Agreement, dated as of October 18, 2017, by and among Tesla 2014 Warehouse SPV LLC, Tesla Finance LLC, the Lenders and Group Agents from time to time party thereto, Deutsche Bank AG, New York Branch, as Administrative Agent, and Deutsche Bank Trust Company Americas, as Paying Agent.</u>	10-K	001-34756	10.44	February 23, 2018	
10.55	<u>Amendment No. 2 to Amended and Restated Loan and Security Agreement, dated as of March 23, 2018, by and among Tesla 2014 Warehouse SPV LLC, Tesla Finance LLC, the Lenders and Group Agents from time to time party thereto, Deutsche Bank AG, New York Branch, as Administrative Agent, and Deutsche Bank Trust Company Americas, as Paying Agent.</u>	10-Q	001-34756	10.4	May 7, 2018	
10.56	<u>Amendment No. 3 to Amended and Restated Loan and Security Agreement, dated as of May 4, 2018, by and among Tesla 2014 Warehouse SPV LLC, Tesla Finance LLC, the Lenders and Group Agents from time to time party thereto, Deutsche Bank AG, New York Branch as Administrative Agent, and Deutsche Bank Trust Company Americas, as Paying Agent.</u>	10-Q	001-34756	10.1	November 2, 2018	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.57†	<u>Amendment No. 4 to Amended and Restated Loan and Security Agreement, dated as of August 16, 2018, by and among Tesla 2014 Warehouse SPV LLC, Tesla Finance LLC, the Lenders and Group Agents from time to time party thereto, Deutsche Bank AG, New York Branch as Administrative Agent and Deutsche Bank Trust Company Americas, as Paying Agent.</u>	10-Q	001-34756	10.3	November 2, 2018	
10.58†	<u>Amendment No. 5 to Amended and Restated Loan and Security Agreement, executed on December 28, 2018, by and among Tesla 2014 Warehouse SPV LLC, Tesla Finance LLC, the Lenders and Group Agents from time to time party thereto, Deutsche Bank AG, New York Branch as Administrative Agent and Deutsche Bank Trust Company Americas, as Paying Agent.</u>	10-K	001-34756	10.48	February 19, 2019	
10.59††	<u>Amendment No. 6 to Amended and Restated Loan and Security Agreement, dated as of August 16, 2019, by and among Tesla 2014 Warehouse SPV LLC, Deutsche Bank Trust Company Americas, New York Branch, as Administrative Agent, and the Lenders and Group Agents from time to time party thereto.</u>	10-Q	001-34756	10.1	October 29, 2019	
10.60†	<u>Loan and Security Agreement, dated as of August 17, 2017, by and among LML Warehouse SPV, LLC, Tesla Finance LLC, the Lenders and Group Agents from time to time party thereto, and Deutsche Bank AG, New York Branch, as Administrative Agent.</u>	10-Q	001-34756	10.4	November 3, 2017	
10.61†	<u>Amendment No. 1 to Loan and Security Agreement, dated as of October 18, 2017, by and among LML Warehouse SPV, LLC, Tesla Finance LLC, the Lenders and Group Agents from time to time party thereto, Deutsche Bank AG, New York Branch, as Administrative Agent, and Deutsche Bank Trust Company Americas, as Paying Agent.</u>	10-K	001-34756	10.46	February 23, 2018	

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	File No.	Exhibit	
10.62	<u>Amendment No. 2 to Loan and Security Agreement, dated as of March 23, 2018, by and among LML Warehouse SPV, LLC, Tesla Finance LLC, the Lenders and Group Agents from time to time party thereto, Deutsche Bank AG, New York Branch, as Administrative Agent, and Deutsche Bank Trust Company Americas, as Paying Agent.</u>	10-Q	001-34756	10.5	May 7, 2018
10.63	<u>Amendment No. 3 to Loan and Security Agreement, dated as of May 4, 2018, by and among LML Warehouse SPV, LLC, the Lenders and Group Agents from time to time party thereto, and Deutsche Bank AG, New York Branch, as Administrative Agent.</u>	10-Q	001-34756	10.2	November 2, 2018
10.64†	<u>Amendment No. 4 to Loan and Security Agreement, dated as of August 16, 2018, by and among LML Warehouse SPV, LLC, the Lenders and Group Agents from time to time party thereto, and Deutsche Bank AG, New York Branch, as Administrative Agent.</u>	10-Q	001-34756	10.4	November 2, 2018
10.65†	<u>Payoff and Termination Letter, executed on December 28, 2018, by and among LML Warehouse SPV, LLC, the Lenders and Group Agents from time to time party thereto, and Deutsche Bank AG, New York Branch, as Administrative Agent, relating to Loan and Security Agreement.</u>	10-K	001-34756	10.54	February 19, 2019
10.66†	<u>Loan and Security Agreement, executed on December 28, 2018, by and among LML 2018 Warehouse SPV, LLC, Tesla Finance LLC, the Lenders and Group Agents from time to time party thereto, Deutsche Bank Trust Company Americas, as Paying Agent, and Deutsche Bank AG, New York Branch, as Administrative Agent.</u>	10-K	001-34756	10.55	February 19, 2019

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.67††	Letter of Consent, dated as of June 14, 2019, by and among LML 2018 Warehouse SPV, LLC, Deutsche Bank AG, New York Branch, as Administrative Agent, and the Group Agents party thereto, in respect of the Loan and Security Agreement, dated as of August 17, 2017 and as amended from time to time, by and among LML Warehouse SPV, LLC, Tesla Finance LLC, and the Lenders, Group Agents and Administrative Agent from time to time party thereto.	10-Q	001-34756	10.1	July 29, 2019	
10.68††	Amendment No. 1 to Loan and Security Agreement, dated as of August 16, 2019, by and among LML 2018 Warehouse SPV, LLC, Deutsche Bank Trust Company Americas, as Paying Agent, and Deutsche Bank AG, New York Branch, as Administrative Agent, and the Lenders and Group Agents from time to time party thereto.	10-Q	001-34756	10.2	October 29, 2019	
10.69	Amendment No. 2 to Loan and Security Agreement, dated as of December 13, 2019, by and among LML 2018 Warehouse SPV, LLC, Deutsche Bank Trust Company Americas, as Paying Agent, and Deutsche Bank AG, New York Branch, as Administrative Agent, and the Lenders and Group Agents from time to time party thereto.	—	—	—	—	X
10.70	Purchase Agreement, dated as of August 11, 2017, by and among the Registrant, SolarCity and Goldman Sachs & Co. LLC and Morgan Stanley & Co. LLC as representatives of the several initial purchasers named therein.	8-K	001-34756	10.1	August 23, 2017	
10.71	Amended and Restated Agreement For Research & Development Alliance on Triex Module Technology, effective as of September 2, 2014, by and between The Research Foundation For The State University of New York, on behalf of the College of Nanoscale Science and Engineering of the State University of New York, and Silevo, Inc.	10-Q(1)	001-35758	10.16	November 6, 2014	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.72	<u>First Amendment to Amended and Restated Agreement For Research & Development Alliance on Triex Module Technology, effective as of October 31, 2014, by and between The Research Foundation For The State University of New York, on behalf of the College of Nanoscale Science and Engineering of the State University of New York, and Silevo, Inc.</u>	10-K(1)	001-35758	10.16a	February 24, 2015	
10.73	<u>Second Amendment to Amended and Restated Agreement For Research & Development Alliance on Triex Module Technology, effective as of December 15, 2014, by and between The Research Foundation For The State University of New York, on behalf of the College of Nanoscale Science and Engineering of the State University of New York, and Silevo, Inc.</u>	10-K(1)	001-35758	10.16b	February 24, 2015	
10.74	<u>Third Amendment to Amended and Restated Agreement For Research & Development Alliance on Triex Module Technology, effective as of February 12, 2015, by and between The Research Foundation For The State University of New York, on behalf of the College of Nanoscale Science and Engineering of the State University of New York, and Silevo, Inc.</u>	10-Q(1)	001-35758	10.16c	May 6, 2015	
10.75	<u>Fourth Amendment to Amended and Restated Agreement For Research & Development Alliance on Triex Module Technology, effective as of March 30, 2015, by and between The Research Foundation For The State University of New York, on behalf of the College of Nanoscale Science and Engineering of the State University of New York, and Silevo, Inc.</u>	10-Q(1)	001-35758	10.16d	May 6, 2015	
10.76	<u>Fifth Amendment to Amended and Restated Agreement For Research & Development Alliance on Triex Module Technology, effective as of June 30, 2015, by and between The Research Foundation For The State University of New York, on behalf of the College of Nanoscale Science and Engineering of the State University of New York, and Silevo, LLC.</u>	10-Q(1)	001-35758	10.16e	July 30, 2015	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.77	<u>Sixth Amendment to Amended and Restated Agreement For Research & Development Alliance on Triex Module Technology, effective as of September 1, 2015, by and between The Research Foundation For The State University of New York, on behalf of the College of Nanoscale Science and Engineering of the State University of New York, and Silevo, LLC.</u>	10-Q(1)	001-35758	10.16f	October 30, 2015	
10.78	<u>Seventh Amendment to Amended and Restated Agreement For Research & Development Alliance on Triex Module Technology, effective as of October 9, 2015, by and between The Research Foundation For The State University of New York, on behalf of the College of Nanoscale Science and Engineering of the State University of New York, and Silevo, LLC.</u>	10-Q(1)	001-35758	10.16g	October 30, 2015	
10.79	<u>Eighth Amendment to Amended and Restated Agreement For Research & Development Alliance on Triex Module Technology, effective as of October 26, 2015, by and between The Research Foundation For The State University of New York, on behalf of the College of Nanoscale Science and Engineering of the State University of New York, and Silevo, LLC.</u>	10-Q(1)	001-35758	10.16h	October 30, 2015	
10.80	<u>Ninth Amendment to Amended and Restated Agreement For Research & Development Alliance on Triex Module Technology, effective as of December 9, 2015, by and between The Research Foundation For The State University of New York, on behalf of the College of Nanoscale Science and Engineering of the State University of New York, and Silevo, LLC.</u>	10-K(1)	001-35758	10.16i	February 10, 2016	
10.81	<u>Tenth Amendment to Amended and Restated Agreement For Research & Development Alliance on Triex Module Technology, effective as of March 31, 2017, by and between The Research Foundation For The State University of New York, on behalf of the Colleges of Nanoscale Science and Engineering of the State University of New York, and Silevo, LLC.</u>	10-Q	001-34756	10.8	May 10, 2017	

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.82††	Grant Contract for State-Owned Construction Land Use Right, dated as of October 17, 2018, by and between Shanghai Planning and Land Resource Administration Bureau, as grantor, and Tesla (Shanghai) Co., Ltd., as grantee (English translation).	10-Q	001-34756	10.2	July 29, 2019	
10.83††	Facility Agreement, dated as of September 26, 2019, by and between China Merchants Bank Co., Ltd. Beijing Branch and Tesla Automobile (Beijing) Co., Ltd. (English translation).	10-Q	001-34756	10.3	October 29, 2019	
10.84††	Statement Letter to China Merchants Bank Co., Ltd. Beijing Branch from Tesla Automobile (Beijing) Co., Ltd., dated as of September 26, 2019 (English translation).	10-Q	001-34756	10.4	October 29, 2019	
10.85††	Fixed Asset Syndication Loan Agreement, dated as of December 18, 2019, by and among Tesla (Shanghai) Co., Ltd., China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch, Agricultural Bank of China Shanghai Changning Sub-branch, Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch, and Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch (English translation).	—	—	—	—	X
10.86††	Fixed Asset Syndication Loan Agreement and Supplemental Agreement, dated as of December 18, 2019, by and among Tesla (Shanghai) Co., Ltd., China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch, Agricultural Bank of China Shanghai Changning Sub-branch, Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch, and Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch (English translation).	—	—	—	—	X

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.87††	Syndication Revolving Loan Agreement, dated as of December 18, 2019, by and among Tesla (Shanghai) Co., Ltd. China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch, Agricultural Bank of China Shanghai Changning Sub-branch, Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch, and Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch (English translation).	—	—	—	—	X
21.1	List of Subsidiaries of the Registrant	—	—	—	—	X
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm	—	—	—	—	X
31.1	Rule 13a-14(a) / 15(d)-14(a) Certification of Principal Executive Officer	—	—	—	—	X
31.2	Rule 13a-14(a) / 15(d)-14(a) Certification of Principal Financial Officer	—	—	—	—	X
32.1*	Section 1350 Certifications	—	—	—	—	X
101.INS	Inline XBRL Instance Document	—	—	—	—	X
101.SCH	Inline XBRL Taxonomy Extension Schema Document	—	—	—	—	X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.	—	—	—	—	X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document	—	—	—	—	X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document	—	—	—	—	X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document	—	—	—	—	X
104	Cover Page Interactive Data File (formatted as inline XBRL with applicable taxonomy extension information contained in Exhibits 101)					
*	Furnished herewith					
**	Indicates a management contract or compensatory plan or arrangement					
†	Confidential treatment has been requested for portions of this exhibit					
††	Portions of this exhibit have been redacted in compliance with Regulation S-K Item 601(b)(10).					
(1)	Indicates a filing of SolarCity					

ITEM 16. SUMMARY

None

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Tesla, Inc.

Date: February 13, 2020

/s/ Elon Musk
Elon Musk
Chief Executive Officer
(Principal Executive Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Elon Musk</u> Elon Musk	Chief Executive Officer and Director (Principal Executive Officer)	February 13, 2020
<u>/s/ Zachary J. Kirkhorn</u> Zachary J. Kirkhorn	Chief Financial Officer (Principal Financial Officer)	February 13, 2020
<u>/s/ Vaibhav Taneja</u> Vaibhav Taneja	Chief Accounting Officer (Principal Accounting Officer)	February 13, 2020
<u>/s/ Robyn Denholm</u> Robyn Denholm	Director	February 13, 2020
<u>/s/ Ira Ehrenpreis</u> Ira Ehrenpreis	Director	February 13, 2020
<u>/s/ Lawrence J. Ellison</u> Lawrence J. Ellison	Director	February 13, 2020
<u>/s/ Antonio J. Gracias</u> Antonio J. Gracias	Director	February 13, 2020
<u>/s/ Stephen T. Jurvetson</u> Stephen T. Jurvetson	Director	February 13, 2020
<u>/s/ James Murdoch</u> James Murdoch	Director	February 13, 2020
<u>/s/ Kimbal Musk</u> Kimbal Musk	Director	February 13, 2020
<u>/s/ Kathleen Wilson-Thompson</u> Kathleen Wilson-Thompson	Director	February 13, 2020

**DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED PURSUANT
TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934**

As of February 13, 2020, Tesla, Inc. had one class of common stock registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act").

The following description of our common stock is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to our restated certificate of incorporation (the "Certificate of Incorporation") and our amended and restated bylaws (the "Bylaws"), each of which is incorporated herein by reference as an exhibit to the Annual Report on Form 10-K filed with the Securities and Exchange Commission, of which this Exhibit 4.119 is a part. We encourage you to read our Certificate of Incorporation, our Bylaws and the applicable provisions of the General Corporation Law of the State of Delaware (the "DGCL") for additional information.

Authorized Capital Stock

Our authorized capital stock consists of 2,100,000,000 shares, with a par value of \$0.001 per share, of which 2,000,000,000 shares are designated as common stock.

The holders of common stock are entitled to one vote per share on all matters submitted to a vote of our stockholders and do not have cumulative voting rights. Accordingly, holders of a majority of the shares of common stock entitled to vote in any election of directors may elect all of the directors standing for election. Subject to preferences that may be applicable to any preferred stock outstanding at the time, the holders of outstanding shares of common stock are entitled to receive ratably any dividends declared by our board of directors out of assets legally available. Upon our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any then outstanding shares of preferred stock. Holders of common stock have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock.

We have certain outstanding securities that may be converted, exercised or exchanged into shares of our common stock.

Registration Rights

Certain holders of unregistered common stock purchased in private placements, or their permitted transferees, are entitled to rights with respect to the registration of such shares under the Securities Act of 1933, as amended, or the Securities Act. These rights are provided under the terms of an investors' rights agreement between us and the holders of these shares, or the investors' rights agreement, and include demand registration rights, short-form

registration rights and piggyback registration rights. All fees, costs and expenses of underwritten registrations will be borne by us and all selling expenses, including underwriting discounts and selling commissions, will be borne by the holders of the shares being registered.

The registration rights terminate with respect to the registration rights of an individual holder after the date that is five years following such time when the holder can sell all of the holder's shares in any three month period under Rule 144 or another similar exemption under the Securities Act, unless such holder holds at least 2% of our voting stock.

Listing

Our common stock is listed on the Nasdaq Global Select Market under the symbol "TSLA."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A.

Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws

Our amended and restated certificate of incorporation and our amended and restated bylaws contain certain provisions that could have the effect of delaying, deterring or preventing another party from acquiring control of us. These provisions and certain provisions of Delaware law, which are summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate more favorable terms with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us.

Limits on Ability of Stockholders to Act by Written Consent or Call a Special Meeting

Our amended and restated certificate of incorporation provides that our stockholders may not act by written consent, which may lengthen the amount of time required to take stockholder actions. As a result, a holder controlling a majority of our capital stock would not be able to amend our amended and restated bylaws or remove directors without holding a meeting of our stockholders called in accordance with our amended and restated bylaws.

In addition, our amended and restated bylaws provide that special meetings of the stockholders may be called only by the chairperson of the board, the chief executive officer, the president (in the absence of a chief executive officer), or our board of directors. Stockholders may not call a special meeting, which may delay the ability of our stockholders to force

consideration of a proposal or for holders controlling a majority of our capital stock to take any action, including the removal of directors.

Requirements for Advance Notification of Stockholder Nominations and Proposals

Our amended and restated bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of our board of directors or a committee of our board of directors. These provisions may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of our company.

Board Classification

Our board of directors is divided into three classes, one class of which is elected each year by our stockholders, and the directors in each class will serve for a three-year term. A third party may be discouraged from making a tender offer or otherwise attempting to obtain control of us as it is more difficult and time-consuming for stockholders to replace a majority of the directors on a classified board.

No Cumulative Voting

Our amended and restated certificate of incorporation and amended and restated bylaws do not permit cumulative voting in the election of directors. Cumulative voting allows a stockholder to vote a portion or all of its shares for one or more candidates for seats on the board of directors. Without cumulative voting, a minority stockholder may not be able to gain as many seats on our board of directors as the stockholder would be able to gain if cumulative voting were permitted. The absence of cumulative voting makes it more difficult for a minority stockholder to gain a seat on our board of directors to influence our board's decision regarding a takeover.

Amendment of Charter Provisions

The amendment of the above provisions of our amended and restated certificate of incorporation requires approval by holders of at least two-thirds of our outstanding capital stock entitled to vote generally in the election of directors.

Delaware Anti-Takeover Statute

We are subject to the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. In general, Section 203 prohibits a publicly held Delaware corporation from engaging, under certain circumstances, in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

- prior to the date of the transaction, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, calculated as provided under Section 203; or
- at or subsequent to the date of the transaction, the business combination is approved by our board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation's outstanding voting stock. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors does not approve in advance. We also anticipate that Section 203 may also discourage attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

The provisions of Delaware law and the provisions of our amended and restated certificate of incorporation and amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they might also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions might also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders might otherwise deem to be in their best interests.

EXECUTION COPY

AMENDMENT NO. 2
TO
LOAN AND SECURITY AGREEMENT

THIS AMENDMENT NO. 2 TO LOAN AND SECURITY AGREEMENT (this “Amendment”), dated as of December 13, 2019, is entered into by and among LML 2018 WAREHOUSE SPV, LLC, a Delaware limited liability company (the “Borrower”), the Lenders party hereto, the Group Agents party hereto, DEUTSCHE BANK TRUST COMPANY AMERICAS, a New York banking corporation, as paying agent (the “Paying Agent”) and DEUTSCHE BANK AG, NEW YORK BRANCH, as administrative agent (in such capacity, the “Administrative Agent”) and is made in respect of the Loan and Security Agreement, dated as of December 27, 2018 (the “Loan Agreement”) among the Borrower, Tesla Finance LLC, a Delaware limited liability company (“TFL”), the Lenders party thereto, the Group Agents party thereto, the Administrative Agent and the Paying Agent. Defined terms used herein and not otherwise defined herein shall have the respective meanings given to them in the Loan Agreement as amended hereby.

WHEREAS, the Borrower, the Lenders, the Group Agents, the Paying Agent and the Administrative Agent have agreed to amend the Loan Agreement on the terms and conditions set forth herein;

NOW, THEREFORE, in consideration of the premises set forth above, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Borrower, the Lenders, the Group Agents, the Paying Agent and the Administrative Agent agree as follows:

1. Amendments to Loan Agreement. Effective as of the Amendment Effective Date (as defined below) and subject to the satisfaction of the conditions precedent set forth in Section 2 hereof:

(a) Section 1.01 of the Loan Agreement is hereby amended by amending the definition of “Excess Concentration Amount” to read as follows:

“‘*Excess Concentration Amount*’ shall mean, with respect to all Warehouse SUBI Leases that are Eligible Leases on such date, the sum of, without duplication, the amounts (if any) by which:

(i) the aggregate Securitization Value of all Warehouse SUBI Leases that are Eligible Leases with Lease Maturity Dates occurring more than 48 months from the date of origination of such Leases exceeds the 48+ Month Limit;

(ii) if such date is on or after June 30, 2020, the aggregate Base Residual Value of all Warehouse SUBI Leases that are Eligible Leases scheduled to reach their Lease Maturity Date in any one (1) month exceeds the Single Month Maturity Limit;

(iii) if such date is on or after June 30, 2020, the aggregate Base Residual Value of all Warehouse SUBI Leases that are Eligible Leases scheduled to reach their Lease Maturity Date in any 6 consecutive months exceeds the Six Month Maturity Limit;

(iv) if such date is on or after the 90th day after the Closing Date, the amount by which the aggregate Base Residual Value of all Warehouse SUBI Leases that are Eligible Leases exceeds the Base RV Limit;

(v) the aggregate Securitization Value of all Warehouse SUBI Leases that are Eligible Leases that cause the weighted average FICO Score of all Lessees (or, if a Lessee is an entity, the natural person who is the co-lessee or guarantor under the applicable Lease and an owner of such Lessee) of all Warehouse SUBI Leases that are Eligible Leases to be less than the WA FICO Limit; in determining which Warehouse SUBI Lease causes such weighted average FICO Score to be less than the WA FICO Limit, the Warehouse SUBI Lease or Warehouse SUBI Leases most recently originated or purchased by the Trust shall be treated as causing such breach;

(vi) the aggregate Securitization Value of all Warehouse SUBI Leases that are Eligible Leases with respect to which the FICO Score of the related Lessee (or, if a Lessee is an entity, the natural person who is the co-lessee or guarantor under the applicable Lease and an owner of such Lessee) of such Eligible Leases is 600 or greater but less than the Minimum FICO Limit Score exceeds the Minimum FICO Limit;

(vii) the aggregate Securitization Value of all Warehouse SUBI Leases originated in any state (other than California) that are Eligible Leases exceeds the Single State (Non-CA) Limit;

(viii) the aggregate Securitization Value of all Warehouse SUBI Leases originated in the State of California that are Eligible Leases exceeds the Single State (CA) Limit;

(ix) the aggregate Securitization Value of all Warehouse SUBI Leases that are Extended Leases exceeds the Extended Lease Limit;

(x) the aggregate Securitization Value of Warehouse SUBI Leases with Lessees with no FICO score exceeds the No FICO Score Limit;

(xi) the aggregate Securitization Value of Warehouse SUBI Leases with Lessees with less than a 600 FICO score exceeds the Sub 600 FICO Score Limit; and

(xii) the aggregate Securitization Value of Warehouse SUBI Leases that are Commercial Leases exceed the Commercial Lease Limit.”

2. Conditions Precedent. This Amendment shall become effective as of the date hereof (the “Amendment Effective Date”) upon satisfaction or waiver of the following conditions precedent:

(a) the receipt by the Administrative Agent or its counsel of counterpart signature pages to this Amendment;

(b) no Default, Event of Default or Potential Servicer Default shall have occurred or be continuing, the Termination Date shall not have occurred and no Event of Bankruptcy shall have occurred with respect to TFL or Tesla, Inc.; and

(c) the Administrative Agent and each Group Agent shall have received such other documents, instruments and agreements as the Administrative Agent or such Group Agent may have reasonably requested.

3. Representations and Warranties of the Borrower. The Borrower hereby represents and warrants to the Administrative Agent, each Group Agent and each Lender as of the date hereof that:

(a) This Amendment and the Loan Agreement, as amended hereby, constitute the legal, valid and binding obligations of the Borrower and are enforceable against the Borrower in accordance with their respective terms, except as such enforcement may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws relating to or limiting creditors' rights generally and by general principles of equity (regardless of whether enforcement is sought in a proceeding in equity or at law).

(b) Upon the effectiveness of this Amendment, the Borrower hereby affirms that all representations and warranties made by it in Article IV of the Loan Agreement, as amended, are correct in all material respects on the date hereof as though made as of the effective date of this Amendment, unless and to the extent that any such representation and warranty is stated to relate solely to an earlier date, in which case such representation and warranty shall have been true and correct in all material respects as of such earlier date.

(c) As of the date hereof, no Default, Event of Default or Potential Servicer Default shall have occurred or be continuing, the Termination Date shall not have occurred and no Event of Bankruptcy shall have occurred with respect to TFL or Tesla, Inc.

4. Reference to and Effect on the Loan Agreement.

(a) Upon the effectiveness of Section 1 hereof, each reference in the Loan Agreement to "this Agreement", "hereunder", "hereof", "herein" or words of like import shall mean and be a reference to the Loan Agreement as amended hereby.

(b) The Loan Agreement, as amended hereby, and all other documents, instruments and agreements executed and/or delivered in connection therewith, shall remain in full force and effect until hereafter terminated in accordance with their respective terms, and the Loan Agreement and such documents, instruments and agreements are hereby ratified and confirmed.

(c) Except as expressly provided herein, the execution, delivery and effectiveness of this Amendment shall not operate as a waiver of any right, power or remedy of the Administrative Agent, any Agent or any Lender, nor constitute a waiver of

any provision of the Loan Agreement or any other documents, instruments and agreements executed and/or delivered in connection therewith.

5. Costs and Expenses. The Borrower agrees to pay all reasonable and actual costs, fees, and out-of-pocket expenses (including the reasonable attorneys' fees, costs and expenses of Morgan, Lewis & Bockius LLP, counsel to the Administrative Agent, the Group Agents and the Lenders) incurred by the Administrative Agent, the Paying Agent, each Group Agent and each Lender in connection with the preparation, review, execution and enforcement of this Amendment.

6. Direction to Paying Agent to Execute this Amendment. By execution of this Amendment, the Administrative Agent and the Lenders hereby direct the Paying Agent to execute this Amendment.

7. GOVERNING LAW. THIS AMENDMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK WITHOUT REFERENCE TO ITS CONFLICTS OF LAWS PROVISIONS (OTHER THAN SECTIONS 5-1401 AND 5-1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW).

8. Headings. Section headings in this Amendment are included herein for convenience of reference only and shall not constitute a part of this Amendment for any other purpose.

9. Incorporation by Reference. Section 12.13 (*No Petition*) of the Loan Agreement is hereby incorporated by reference herein, mutatis mutandis. This Section 11 shall be continuing and shall survive any termination of the Loan Agreement.

10. Counterparts. This Amendment may be executed by one or more of the parties to the Amendment on any number of separate counterparts and all of said counterparts taken together shall be deemed to constitute one and the same instrument. Delivery of an executed counterpart of a signature page to this Amendment by facsimile (transmitted by telecopier or by email) shall be effective as delivery of a manually executed counterpart of this Amendment.

Remainder of page left intentionally blank

IN WITNESS WHEREOF, the parties have caused this Amendment to be duly executed and delivered by their duly authorized signatories as of the date first above written.

LML 2018 WAREHOUSE
SPV, LLC, as Borrower

By: /s/ Jeff Munson
Name: Jeff Munson
Title: President

Signature Page to Amendment No. 2 to Loan and Security Agreement

DEUTSCHE BANK
TRUST COMPANY
AMERICAS, as Paying
Agent

By: /s/ Rosemary
Cabrera
Name: Rosemary Cabrera
Title: Associate

By: /s/ William
Schwerdtman
Name: William
Schwerdtman
Title: Associate

Signature Page to Amendment No. 2 to Loan and Security Agreement

DEUTSCHE BANK AG,
NEW YORK BRANCH, as
Administrative Agent, as a
Group Agent and as a
Committed Lender

By: /s/ Kevin Fagan
Name: Kevin Fagan
Title: Vice President

By: /s/ Katherine
Bologna
Name: Katherine Bologna
Title: Managing Director

Signature Page to Amendment No. 2 to Loan and Security Agreement

CITIBANK, N.A., as a
Group Agent and as a
Committed Lender

By: /s/ Brian Chin
Name: Brian Chin
Title: Vice President

CAFCO LLC, as a Conduit
Lender

By: Citibank, N.A., as
Attorney-in-Fact

By: /s/ Brian Chin
Name: Brian Chin
Title: Vice President

CHARTA LLC, as a
Conduit Lender

By: Citibank, N.A., as
Attorney-in-Fact

By: /s/ Brian Chin
Name: Brian Chin
Title: Vice President

CIESCO LLC, as a Conduit
Lender

By: Citibank, N.A., as
Attorney-in-Fact

By: /s/ Brian Chin
Name: Brian Chin
Title: Vice President

CRC FUNDING LLC, as a
Conduit Lender

By: Citibank, N.A., as
Attorney-in-Fact

By: /s/ Brian Chin
Name: Brian Chin
Title: Vice President

Signature Page to Amendment No. 2 to Loan and Security Agreement

CREDIT SUISSE AG,
NEW YORK BRANCH, as
a Group Agent

By: /s/ Kevin Quinn
Name: Kevin Quinn
Title: Vice President

By: /s/ Jason
Ruchelsman
Name: Jason Ruchelsman
Title: Director

CREDIT SUISSE AG,
CAYMAN ISLANDS
BRANCH, as a Committed
Lender

By: /s/ Kevin Quinn
Name: Kevin Quinn
Title: Authorized
Signatory

By: /s/ Jason
Ruchelsman
Name: Jason Ruchelsman
Title: Authorized
Signatory

GIFS CAPITAL
COMPANY LLC, as a
Conduit Lender

By: /s/ R. Scott Chisholm
Name: R. Scott Chisholm
Title: Authorized Signer

BARCLAYS BANK PLC,
as a Group Agent

By: /s/ John McCarthy
Name: John McCarthy
Title: Director

SALISBURY
RECEIVABLES
COMPANY LLC, as a
Conduit Lender

By: Barclays Bank PLC,
as attorney-in-fact

By: /s/ John McCarthy
Name: John McCarthy
Title: Director

Signature Page to Amendment No. 2 to Loan and Security Agreement

WELLS FARGO BANK,
NATIONAL
ASSOCIATION, as a
Group Agent and a
Committed Lender

By: /s/ Austin Vanassa
Name: Austin Vanassa
Title: Managing Director

Signature Page to Amendment No. 2 to Loan and Security Agreement

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

Exhibit 10.85

English Convenience Translation
-Original Agreement has been executed in Mandarin Chinese-

Tesla (Shanghai) Co., Ltd.

(as **Borrower**)

China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch

(as **Primary Lead Arranger**)

Agricultural Bank of China Limited, Shanghai Changning Sub-branch

Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch

Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch

(as **Joint Lead Arrangers**)

China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch

(as **Facility Agent**)

Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch

(as **Security Agent**)

China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch and

Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch

(as **Account Banks**)

Agricultural Bank of China Limited, Shanghai Changning Sub-branch

(as **Trade Finance Bank**)

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch

(as Capital Account Bank)

Financial Institutions set out in Schedule 1

(as Original Lenders)

FIXED ASSET SYNDICATION LOAN AGREEMENT
RMB Nine Billion (or its equivalent in USD)

December 18, 2019

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Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with "[***]" to indicate where omissions have been made.

THIS AGREEMENT is made in Shanghai on December 18, 2019 (the "**Effective Date**")

AMONG

- (1) Tesla (Shanghai) Co., Ltd. as Borrower (the "**Borrower**")

Legal Address: D203A, No.168 Tonghui Road, Nanhui New Town, Pudong New District

Legal Representative: Xiaotong Zhu

- (2) China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch as Primary Mandated Lead Arranger and Bookrunner (the "**Primary Lead Arranger**")
- (3) Agricultural Bank of China Limited, Shanghai Changning Sub-branch, Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch, Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch as Joint Mandated Lead Arrangers and Bookrunners (the "**Joint Lead Arrangers**", together with the Primary Lead Arranger referred to as the "**Lead Arrangers**")
- (4) China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch as Facility Agent (the "**Facility Agent**")
- (5) Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch as Security Agent (the "**Security Agent**")
- (6) China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch as Account Bank A (the "**Account Bank A**"); Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch as Account Bank B (the "**Account Bank B**", together with the Account Bank A referred to as the "**Account Banks**")
- (7) Agricultural Bank of China Limited, Shanghai Changning Sub-branch as Trade Finance Bank (the "**Trade Finance Bank**")
- (8) Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch as Capital Account Bank (the "**Capital Account Bank**")
- (9) The following financial institutions as Original Lenders (the "**Original Lenders**")

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with "[***]" to indicate where omissions have been made.

Agricultural Bank of China Limited, Shanghai Changning Sub-branch

Legal Address: No.998 West Dingxi Road, Changning District, Shanghai

Responsible Person: Li Xu

Lending Office: Agricultural Bank of China Limited, Shanghai Changning Sub-branch

China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch

Legal Address: No.900 Lujiazui Ring Road, China (Shanghai) Pilot Free Trade Zone

Responsible Person:

Lending Office: China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch

Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch

Legal Address: No.555, South Xinyuan Road, Pudong New District, Shanghai

Responsible Person: Sheng Zhan

Lending Office: Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch

Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch

Legal Address: No.588 South Pudong Road, China (Shanghai) Pilot Free Trade Zone

Responsible Person: Su'nan Wang

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “***” to indicate where omissions have been made.

Lending Office: Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch

IT IS HEREBY AGREED, after mutual and friendly discussion and based on the true intention of each party, as follows.

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1. DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this Agreement,

Financial Year	means a period commencing from and including January 1st and ending on and including December 31st of each calendar year.
Commitment Percentage	means, in relation to each Lender, the percentage proportion of that Lender's Commitment for the time being to the Total Commitment for the time being.
Commitment	means, <ul style="list-style-type: none"> (i) in relation to each Original Lender, the Original Commitment of such Original Lender minus the participation of such Original Lender in all the Advances already drawn as well as its participation in the Total Commitment cancelled and transferred under the terms of this Agreement; (ii) in relation to each Transferee Bank, any part of the Commitment transferred to such Transferee Bank minus the participation of such Transferee Bank in all Advances already drawn as well as its participation in the Total Commitment cancelled and transferred under the terms of this Agreement.
Original Commitment	means, in relation to each Original Lender, the original commitment amount of that Original Lender in RMB (or its equivalent in USD) set out in Schedule 1 hereof.
Loan Period	has the meaning specified in Clause 6 of this Agreement.
Outstanding Advances	means the aggregate amount of all outstanding Advances drawn in RMB or USD.
Loan Account	means the account opened by the Borrower with the Facility Agent for the purpose of collecting the Advances.

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Revenue Collection Account means the Revenue Collection Account A and/or the Revenue Collection Account B.

Revenue Collection Account A means the account opened by the Borrower with the Account Bank A for the purpose of collecting its relevant operating revenue according to the Account Control Agreement.

Revenue Collection Account B means the account opened by the Borrower with the Account Bank B for the purpose of collection its relevant operating revenue according to the Account Control Agreement.

Facility has the meaning given to it in Clause 2 hereof.

Lender means the Original Lender and/or the Transferee Bank.

Loan Prime Rate (LPR) means the market quoted interest rate issued by the People’s Bank of China on 20 November 2019 or by any authority which is authorized by the People’s Bank of China (currently the National Interbank Funding Center), i.e. 4.80%.

Interest Rate means,

- (i) in relation to each Advance drawn in RMB, the interest rate referred to in paragraph 1 of Clause 5.1 (*Interest Rate*) hereof.
- (ii) in relation to each Advance drawn in USD, the interest rate referred to in paragraph 2 of Clause 5.1 (*Interest Rate*) hereof.

Advance means any principal amount borrowed or to be borrowed (by any means) under the provisions hereof.

Agent means the Facility Agent and the Security Agent.

Security Interests means any mortgage, pledge, lien, deposit or any agreement or arrangement having the effect or for the purpose of a collateral security (whether such agreement or arrangement is governed by or construed in accordance with the laws of the PRC or otherwise).

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Majority Lenders

means, at any time,

- (i) if the Facility has not been drawn, a Lender or the Lenders (either individually or collectively) whose aggregate Commitments represent more than 50% (exclusive of 50%) of the Total Commitment;
- (ii) if the Facility has been drawn, a Lender or the Lenders (either individually or collectively) whose aggregate Outstanding Advances represent more than 50% (exclusive of 50%) of the total Outstanding Advances under the Facility.

Legal Restraint

means,

- (i) the principle that fair compensation may be granted or denied in accordance with the discretion of the court;
- (ii) in relation to bankruptcy, reorganization and other legal events that may generally affect creditors, the laws that enforce the performance of priority obligations;
- (iii) statutory limitation period of legal restrictions;
- (iv) defense for set-off and counterclaims; and
- (v) any other restriction or reservation under any other generally applicable law set out in the legal opinion delivered to the Facility Agent under this Agreement.

Default Interest Rate

means the Overdue Rate and/or the Misappropriation Rate.

Interest Payment Date

means the date on which the Borrower shall pay the interest under this Agreement, which shall be (1) the 21st day of the last month of each quarter or if such day is not a Business Day, the immediately succeeding Business Day, and (2) the Final Maturity Date.

Affiliate Company

means in relation to any person, a Subsidiary of that person or a Holding Company of that person or any other Subsidiary of any Holding Company of that person.

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Borrower's Account	Counterparty means any such account set out in paragraph 2 part 2 of Schedule 2 <i>Form of Drawdown Notice</i>) hereof.
Lending Office	means, in relation to each Finance Party, its office through which it performs its obligation hereunder including such changed Lending Office pursuant to Clause 14.10 (<i>Change of Lending Offices</i>) hereof.
Available Commitment	means, with respect to a Drawdown Notice, the Total Commitment minus the aggregate amount of all requested Advances in any prior Drawdown Notice for which the Drawdown Date has not yet occurred.
Holding Company	means, in relation to a company, enterprise or entity, any other company, enterprise or entity in respect of which it is a Subsidiary.
Interest Rate Adjustment Date	means the date that is the annual anniversary of the Drawdown Date of the first Advance drawn in USD.
London Business Day	means a day on which a bank located in London, United Kingdom is open for general business (other than a Saturday or Sunday).
USD Benchmark Rate	means, on the two (2) London Business Days prior to a Drawdown Date or an Interest Rate Adjustment Date (as applicable), the one year London Interbank Offered Rate administered by ICE Benchmark Administration Limited (or any other person which takes over the administration of that rate) for USD quoted at 11:00 a.m. (London time) displayed on pages LIBOR01 or LIBOR02 of the Thomson Reuters screen (or any replacement Thomson Reuters page which displays that rate) or on the appropriate page of such other information service which publishes that rate from time to time in place of Thomson Reuters.
Misappropriation Rate	has the meaning given to it in paragraph 2 of Clause 5.2 <i>Default Interest Rate</i>) hereof.
PBOC	means the People's Bank of China and/ or its branches.

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Finance Party	means each of the Lead Arrangers, the Facility Agent, the Security Agent, the Trade Finance Bank, the Account Banks, the Capital Account Bank and the Lenders.
Finance Documents	includes this Agreement, the Mortgage Agreement over the Land, the Account Control Agreement, and any agreement that is designated as a Finance Document by the parties to this Agreement.
Effective Date	has the meaning given to it at the beginning of this Agreement.
Transferee Bank	has the meaning given to it in Clause 14.3 (Transfer by the Lenders) hereof.
Availability Period	means the period from the Effective Date of this Agreement to the date falling three (3) years after the Effective Date of this Agreement.
Drawdown Date	means each date on which any Advance is drawn pursuant to this Agreement.
Drawdown Notice	means, in relation to each Advance, a notice of drawing duly completed and delivered by the Borrower pursuant to Clause 4.1 (<i>Drawdown Notice</i>) hereof.
Prepayment Notice	has the meaning given to it in Clause 7 (<i>Prepayments</i>) hereof.
Mortgage Agreement over the Land	means the mortgage agreement over the land executed between the Borrower as the mortgagor and the Security Agent as the mortgagee around the Effective Date of this Agreement.
Event of Default	means any circumstance set out in Clause 12.1 (Events of Default) hereof.

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Existing Loan

means the loan under a RMB three billion five hundred million (or its equivalent in USD) syndication loan agreement executed at March 1, 2019, between the Borrower as the borrower and (1) China Construction Bank Corporation, Shanghai Pudong Branch, Agricultural Bank of China Limited, Shanghai Changning Sub-branch, Industrial and Commercial Bank of China Limited, Shanghai Lingang Sub-branch and Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch, as the lead arrangers; (2) China Construction Bank Corporation, Shanghai Pudong Branch, as the facility agent and the account bank; (3) Agricultural Bank of China Limited, Shanghai Changning Sub-branch, as the consulting bank; (4) Industrial and Commercial Bank of China Limited, Shanghai Lingang Sub-branch, as the managing bank; (5) Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch, as the advising bank and (6) the financial institutions set out in the schedule 1 thereto as the original lenders.

Project

means the project contained in the Shanghai foreign investment project filing certificate (Project Shanghai Code: 310115MA1H9YGWX20195E2101001) (including the updates and changes of such filing certificate from time to time after the Effective Date) of the Borrower, i.e. the Tesla Gigafactory Project (First Phase) First Stage which is located at 1/1 Hill, 8th Street, Luchaogang Town, Shanghai.

Business Day

means a day on which each Lender is open for general business (other than a Saturday or Sunday (excluding Saturdays and Sundays adjusted to be business days pursuant to national regulations) or any other statutory holidays).

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Permitted Trade Finance Facility	means, each Finance Party agrees that the Borrower may subsequently apply to the Trade Finance Bank for issuing and/or conducting letter of credit (and subsequent import bills advance), domestic bank's acceptance bill, guarantee of non-financing nature and providing notes pool service, provided that at the end of any day within the Loan Period, the sum of the aggregate of outstanding amount under such trade finance facility and Outstanding Advances under this Agreement shall not exceed the maximum aggregate principal amount of the Facility set forth in Clause 2
Overdue Rate	has the meaning given to it in paragraph 1 of Clause 5.2 <i>Default Interest Rate</i>) hereof.
Account Control Agreement	means the account control agreement executed between the Borrower and the Account Banks around the Effective Date of this Agreement.
PRC	means the People's Republic of China.
Material Adverse Effect	means, in the reasonable opinion of all the Lenders, a material adverse effect on: <ul style="list-style-type: none"> (i) the ability of the Borrower to perform its payment obligations hereunder; or (ii) the legality, validity or enforceability of the Finance Documents.
Total Commitments	means the aggregate amount of each Lender's Commitment.
Net Assets	means at any time of determination thereof, the owner's equity of the Borrower as set forth in the most recent financial statements of the Borrower delivered to the Facility Agent pursuant to this Agreement.
Transferring Lender	has the meaning given to it in Clause 14.3 (<i>Transfer by the Lenders</i>) hereof.
Transfer Notice	has the meaning given to it in Clause 14.3 (<i>Transfer by the Lenders</i>) hereof.
Transfer Certificate	means a transfer certificate duly executed and delivered by the Transferring Lender, the Transferee Bank and the Facility Agent substantially in the form and substance set out in Schedule 3 (<i>Form of Transfer Certificate</i>) hereof.

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Capital Account	means the account opened by the Borrower with the Capital Account Bank for the purpose of depositing the Borrower's registered capital.
Subsidiary	<p>means, in relation to any company, corporation or entity, a company, corporation or entity:</p> <ul style="list-style-type: none"> (i) which is controlled, directly or indirectly, by the first mentioned company corporation or entity; (ii) more than half the issued equity share capital, registered capital or equity share capital of which is beneficially owned, directly or indirectly, by the first mentioned company, corporation or entity; or (iii) which is a Subsidiary of another Subsidiary of the first mentioned company, corporation or entity, <p>and, for this purpose, a company, corporation or entity shall be treated as being controlled by another if that other company, corporation or entity is able to direct its affairs and/or to control the composition of its board of directors or equivalent body.</p>
Final Maturity Date	means the date falling five (5) years from the first Drawdown Date.

1.2 Principles of Interpretation

In this Agreement:

1. The table of contents and clause headings inserted herein are for ease of reference only and may be ignored in construing this Agreement.
2. The "assets" shall be construed to include all present and future, tangible or intangible asset, property, income, revenue, account receivable or each right and benefit in any asset.
3. A "person" shall be construed to include any individual, company, partnership, sole proprietary or any other corporate or unincorporated person or any other legal entity.
4. An Event of Default is "continuing" if such Event of Default has occurred and is neither eliminated nor remedied or waived pursuant to the provisions hereof.

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5. A "month" means a period starting on one day in a calendar month and ending on the numerically corresponding day in the next calendar month, provided that, if there is no such numerically corresponding day, it shall end on the last day in such next calendar month.
6. The RMB "equivalent" amount denominated in USD shall be converted at the exchange rate at the central parity of the spot exchange rate for USD to RMB published or authorized to publish by the PBOC on 11:00 a.m. (Beijing Time) on the previous Business Day of the calculation date, however, if no such central parity rate is available at that time, the exchange rate shall be determined through reasonable negotiation between the Facility Agent and the Borrower.
7. The "liquidation" or "bankruptcy" of any person shall be construed to include any identical or comparable legal process carried out in accordance with the laws of its place of incorporation or its place of business, and "entering into" such legal process includes such legal process being commenced upon resolution of such person or upon application of any person.
8. Parties hereto or any other person shall include its legal successors and permitted assignees.
9. This Agreement, any other agreement or document shall be construed to include itself and any amendment, modification, substitution or supplement thereof made from time to time in accordance with the provisions therein.

2. THE FACILITY

The Lenders agree to make available to the Borrower a Facility (the "**Facility**") in a maximum aggregate principal amount of RMB9,000,000,000 (IN WORDS: RMB nine billion) (or the equivalent amount drawn in USD); whether the Facility is drawn in RMB or USD shall be determined according to the Borrower's actual needs.

3. PURPOSES

- 3.1 The Borrower shall apply the Advances drawn to pay the costs and expenses related to construction of the Project.
- 3.2 The Borrower shall apply each Advance in accordance with the purposes agreed in the Finance Documents; and the Borrower shall not misappropriate any Advance.
- 3.3 The Borrower shall use each Advance in accordance with the purposes permitted by laws and regulations of the PRC.

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4. DRAWDOWN

4.1 Drawdown Notice

1. The Borrower may (based on its actual needs) draw one or more Advances under the Facility during the Availability Period in accordance with the provisions hereof. There is no limitation on the number of drawdowns.
2. In connection with a request for an Advance, the Borrower shall deliver a Drawdown Notice to the Facility Agent no later than three (3) Business Days prior to the proposed Drawdown Date specified in the Drawdown Notice.
3. Each Drawdown Notice shall satisfy the following requirements: (1) it shall be substantially in the form and substance set out in Schedule 2 (*Form of Drawdown Notice*) hereof; (2) it shall be executed by the authorized signatory of the Borrower (including through handwritten signing or affixing chop of legal representative or affixing signature chop) or by stamping the Borrower's official seal; (3) the proposed Drawdown Date specified in the Drawdown Notice shall be a Business Day; (4) the proposed drawdown amount shall not exceed the Available Commitment as of the date of such Drawdown Notice.
4. The Facility Agent shall, within one (1) Business Day upon receipt of each Drawdown Notice, forward such Drawdown Notice to each Lender and notify each Lender of its Commitment Percentage for that Advance.

4.2 Conditions Precedent to the First Drawdown

Before the first drawdown, the Borrower shall provide the Facility Agent with the following documents or complete the following matters to the satisfaction of the Facility Agent, and the Facility Agent shall not unreasonably refuse or delay to confirm the satisfaction of each following conditions precedent:

1. the original copies of the executed Finance Documents;
2. photocopies (stamped with the Borrower's official seal) of the latest business license, the latest receipt of filing for foreign invested enterprise issued by the Ministry of Commerce and the latest articles of association, and the original copy of the board resolutions of the Borrower;
3. the Shanghai foreign investment project filing certificate stamped with the Borrower's official seal relating to the Project obtained by the Borrower (the Project Shanghai Code: 310115MA1H9YGWX20195E2101001);
4. evidence that the Borrower's Loan Account and the Revenue Collection Account have been opened;

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5. photocopies of the following documents stamped with the Borrower's official seal
 - (1) the land use right certificate;
 - (2) construction site planning permit corresponding to the purpose of such drawdown;
 - (3) construction engineering planning permit corresponding to the purpose of such drawdown; and
 - (4) construction permit corresponding to the purpose of such drawdown;
6. evidence that the ratio of the paid-up capital funds of the Project and the aggregate drawdown amount is no less than 2:8, and the Project capital funds shall be applied to the Project before the utilization of the Advance;
7. a photocopy of the evidence that the Borrower has obtained the environment impact assessment filling certificate in relation to the Project, stamped with the Borrower's official seal;
8. a photocopy of the construction all-risk insurance policy stamped with the Borrower's official seal; and
9. if the Advance will be in the form of an entrusted payment pursuant to Clause 8.2, submitting a scanned copy of the relevant agreement or proof of use of the entrusted payment or photocopies of such evidence stamped with the Borrower's official seal.

4.3 Conditions Precedent to Each Drawdown

The Facility Agent shall confirm that each of the conditions precedent set out below have been satisfied (such conditions precedent shall be satisfactory to the Facility Agent provided that such satisfaction shall not be unreasonably withheld or delayed), or the Facility Agent (as decided by the Majority Lenders) has otherwise waived the condition. Upon the confirmation of the Facility Agent, each Lender shall make its participation in each Advance through the Facility Agent in accordance with its then-applicable Commitment Percentage pursuant to Clause 8.1 (*Making Advances*) hereof.

1. The Facility Agent has received a Drawdown Notice issued by the Borrower in accordance with Clause 4.1 (*Drawdown Notice*) hereof.

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2. On the proposed Drawdown Date specified in the Drawdown Notice, each representation of fact made by the Borrower in Clause 10 (*Representations of Facts*) hereof shall be true and correct in all material respects with the same effect as though such representation of fact had been made on such Drawdown Date; it being understood and agreed that any representation of fact which by its terms is made as of a specified date.
3. On the proposed Drawdown Date specified in the Drawdown Notice, no Event of Default by the Borrower has occurred and is continuing.
4. The Borrower has provided the scanned copies of those construction site planning permit, construction engineering planning permit and construction permit corresponding to the purpose of such drawdown or photocopies of the aforementioned permits stamped with the Borrower’s official seal, except where such permits have already been provided.
5. The Borrower has provided the scanned copies of the Shanghai Foreign Investment Project Filing Certificate and Environment Influence Assessment Filing Certificate or photocopies of such certificates stamped with the Borrower’s official seal, except where such evidence has already been provided.
6. If the Advance will be in the form of an entrustment payment pursuant to Section 8.2, the scanned copies of relevant supporting agreements or documents evidencing the loan purpose or photocopies of such evidence stamped with the Borrower’s official seal are provided, except where such materials have already been provided.

5. INTEREST

5.1 Interest Rate

1. The rate of interest accrued on each Advance drawn in RMB under the Facility shall be fixed interest rate, which shall be the Loan Prime Rate (LPR) minus 0.7625%, i.e. 4.0375% per year (tax included (for the avoidance of doubt, excluding foreign taxes, similarly hereinafter)).
2. The rate of interest accrued on each Advance drawn in USD under the Facility shall be the sum of the USD Benchmark Rate plus 130 BPs (tax included). The Borrower and the Facility Agent shall adjust the Interest Rate on the Interest Rate Adjustment Date, and the adjusted Interest Rate shall be the sum of the then applicable USD Benchmark Rate plus 130 BPs (tax included). After each Interest Rate Adjustment Date, the adjusted Interest Rate shall apply to all Advances drawn in USD.

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If the USD Benchmark Rate is no longer announced, the Borrower and the Facility Agent shall endeavor to establish an alternate rate of interest to such USD Benchmark Rate (including any mathematical or other adjustments to the benchmark (if any) incorporated therein), provided that, if such alternate rate of interest as so determined would be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement. Notwithstanding any contrary provisions in this Agreement, such amendment shall become effective without any further action or consent of any other party to this Agreement so long as the Facility Agent shall not have received, within five (5) Business Days of the date that the Facility Agent shall have posted such proposed amendment to all Lenders, a written notice from the Majority Lenders stating that such Majority Lenders object to such amendment

5.2 Default Interest Rate

1. If the Borrower fails to pay any sum payable on its due date pursuant to the provisions of this Agreement, interest shall accrue on such overdue sum, from its due date up to the date of full payment, at 130% of the Interest Rate (the "**Overdue Rate**").
2. If any Advance is misappropriated by the Borrower, interest shall accrue on the misappropriated Advance, from the date of misappropriation until the date such misappropriation is remedied, including by using such misappropriated funds for a purpose set forth in the Finance Documents or repayment by Borrower of such misappropriated funds, at 150% of the Interest Rate (the "**Misappropriation Rate**").
3. If an Advance is both overdue and misappropriated, the Default Interest Rate accrued thereon shall be the higher of two.
4. The interest accruing on the overdue and/or misappropriated Advances shall be compounded and such compound interest shall be paid on the next Interest Payment Date after the date on which the overdue amount has been fully paid/the misappropriation is rectified pursuant to relevant regulations by the PBOC. The amount of the compound interest shall accrue on a daily basis, (1) if the Borrower fails to pay any sum payable on its due date pursuant to the provisions of this Agreement, the compound interest shall accrue on such overdue sum, from its due date up to the date of full payment; or (2) if any Advance is misappropriated by the Borrower, the compound interest shall accrue on the misappropriated Advance, from the date of misappropriation until the date such misappropriation is remedied.

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5.3 Calculation of Interest

1. Interest and/or default interest on any amounts outstanding hereunder shall accrue from day to day and be computed on the basis of a 360-day year and the actual number of days elapsed.
2. Interest shall accrue on each Advance commencing on the date on which such Advance is paid to the Loan Account.

5.4 Payment of Interest

1. The Borrower shall pay accrued interest calculated in accordance with Clause 5.1 (*Interest Rate*) and Clause 5.3 (*Calculation of Interest*) hereof on the Interest Payment Date.
2. The Facility Agent shall notify the Borrower in writing no later than fifteen (15) Business Days prior to each Interest Payment Date of the amounts and calculation method of interest payable by the Borrower on each Interest Payment Date.
3. As per the requirements of the Borrower, the Lenders shall issue the interest value-added tax invoices to the Borrower pursuant to applicable laws and regulations.
4. Notwithstanding any other provisions of this Agreement, the Borrower shall ensure that no later than ten (10) days prior to the next Interest Payment Date, the total capital balance of its Revenue Collection Account is not less than the amount of interest payable on that Interest Payment Date. For the avoidance of doubt, the Borrower shall not be required to deposit any funds as an interest reserve in the Revenue Collection Account in respect of any new drawdown made during the ten (10)-day period prior to the applicable Interest Payment Date.

6. REPAYMENT

6.1 Loan Period

The loan period under this Agreement shall commence from the first Drawdown Date and end on and include the Final Maturity Date (the "**Loan Period**").

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6.2 Repayment

1. The Borrower shall repay the principal on each Repayment Date as set forth in the table below:

Repayment Date	Cumulative repayment percentage of the Outstanding Advances as of the expiry date of the Availability Period
The date falling thirty-six (36) months from the first Drawdown Date	7.5%
The date falling forty-two (42) months from the first Drawdown Date	15%
The date falling forty-eight (48) months from the first Drawdown Date	30%
The date falling fifty-four (54) months from the first Drawdown Date	65%
The Final Maturity Date	100%

2. Notwithstanding any other provisions of this Agreement, the Borrower shall ensure that no later than ten (10) days prior to the next Repayment Date, the total capital balance of its Revenue Collection Account is not less than the amount of principal and interest payable on such Repayment Date.

7. PREPAYMENTS

The Borrower may prepay all or part of the Outstanding Advances on any Business Day after the first Drawdown Date, provided that the Borrower shall notify the Facility Agent in writing no later than the 20th day of the month immediately preceding the month of the proposed prepayment date (the “**Prepayment Notice**”). The Borrower shall not pay any penalties or any fees regarding such prepayment, provided that prepayment of the principal amount shall be made together with the interest accrued on such prepaid principal through the applicable prepayment date. The Prepayment Notice shall specify the amount and the date of the prepayment. No amount so prepaid may be borrowed again.

The amount of each prepayment by the Borrower shall not be less than RMB 100 million and shall be an integral multiple of RMB 100 million. Amounts prepaid shall offset the principal of the Outstanding Advances in the reverse order.

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8. PAYMENTS

8.1 Making Advances

Each Lender participating in an Advance pursuant to Clause 4.3 (*Conditions Precedent to Each Drawdown*) hereof shall pay its portion of the Advance denominated in RMB or USD under the Facility to the Facility Agent's account no later than 11:00 a.m. (Beijing Time) on the proposed Drawdown Date specified in the Drawdown Notice in respect of that Advance in accordance with its Commitment Percentage at the time of the Advance.

8.2 Payment of Advances

1. If any single payment amount exceeds RMB5,000,000 (IN WORDS: RMB five million) or its equivalent in USD, payment by the Lenders upon entrustment shall be applicable. Entrusted payment by the Lenders refers to the Facility Agent paying out each Advance to the Loan Account on each Drawdown Date in accordance with the Borrower's Drawdown Notice and entrustment of payment, and transferring the relevant Advance to Borrower's Counterparty Accounts on the same day.

In the event of payment by the Lenders upon entrustment, the Borrower shall submit the agreements in relation to the entrusted payment or documents evidencing the loan usage to the Facility Agent before each Advance is made.

2. In addition to the circumstances stipulated in the first paragraph above, the Borrower may choose to make payment by either independent payment or entrusted payment at its own discretion. Independent payment by the Borrower means that the Facility Agent pays out the Advances to the Loan Account in accordance with the Borrower's Drawdown Notice and the Borrower independently pays out to the Borrower's counterparties in satisfaction of the usage purposes stipulated herein. The Borrower shall present the relevant payment list evidencing the payment status of each Advance on a quarterly basis to the Facility Agent.
3. If the Borrower has met the conditions under Article 4 (*Drawdown*) of this Agreement, the Lenders and the Facility Agent are obliged to make the Advance on the proposed Drawdown Date (whether in the case of autonomous payment to the Loan Account or entrusted payment to the Borrower's Counterparty Account). If any Lender fails to make the Advance on time, the Borrower shall have the right to require such Lender to transfer its Commitment, and the other Lenders have the priority right to such transfer.

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8.3 Payment by the Borrower

The Borrower shall pay any amount payable under this Agreement on its due date no later than 11:00 a.m. (Beijing Time) to the account designated by the Facility Agent at the Effective Date.

8.4 Payment by the Facility Agent

1. The Facility Agent shall pay to the Loan Account the proceeds of the relevant Advances actually received by it pursuant to Clause 8.1 (*Making Advances*) hereof and shall make payment pursuant to Clause 8.2 (*Payment of Advances*) hereof no later than 3:00 p.m. (Beijing Time) on each Drawdown Date, and the Facility Agent is obliged to notify the payment of such Advance to each Lender.
2. The Facility Agent shall pay to the account of each Finance Party each amount actually received by it pursuant to Clause 8.3 (*Payment by the Borrower*) hereof on the date of receipt in such order and amount as set out in Clause 8.5 (*Distribution Order*) hereof.

8.5 Distribution Order

Unless otherwise required by the laws and regulations, each payment received by the Facility Agent under Clause 8.3 (*Payment by the Borrower*) hereof shall be distributed in such order and amount as set out below:

1. in and towards any interest (including but not limited to any compound interest and default interest) due and payable by the Borrower hereunder pro rata among the Lenders; and
2. in and towards any principal amount due and payable by the Borrower hereunder pro rata among the Lenders.

8.6 Advances

1. If no Material Adverse Event has occurred, the Facility Agent shall advance any amount on behalf of any Lender within the Facility Agent's Commitment when such Lender is unable to make the payment. The Facility Agent is entitled to recover such advances from the Lender who fails to make the payment.
2. Other Lenders may make payment on account of any Lender who fails to make payment, and such other Lenders making such advances are entitled to recover from the Lender who fails to make the payment.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with "[***]" to indicate where omissions have been made.

8.7 Currency of Payments

1. Any Advance shall be drawn in the currency specified in the Drawdown Notice in respect of that Advance.
2. Any interest accruing on any amounts shall be made in the currency in which such amounts are denominated.
3. Any repayment or prepayment of any Outstanding Advances shall be made in the currency in which such Outstanding Advances are denominated.
4. Other payments payable under this Agreement shall be made in the currency specified herein.

8.8 Set Off

The Borrower shall not exercise any right of set-off when making any payment under this Agreement.

8.9 Non Business Days

If a payment payable is made on a day that is not a Business Day pursuant to the provisions of this Agreement, it shall be made on the next succeeding Business Day.

8.10 Pro Rata Sharing

1. Except as otherwise provided in Clause 8.10 (*Pro Rata Sharing*) hereof, if any Finance Party (the "**Recovering Lender**") receives any payment due and payable under this Agreement from the Borrower which is contrary to Clause 8.3 (*Payment by the Borrower*) hereof, that Recovering Lender shall forthwith notify the Facility Agent of the receipt of such amount (the "**Sharing Amount**") on the date of receipt and promptly transfer such Sharing Amount to the Facility Agent.
2. The Facility Agent shall treat the Sharing Amount received by it pursuant to paragraph 1 of Clause 8.10 (*Pro Rata Sharing*) hereof as being made by the Borrower and shall distribute the same to each Finance Party's account in accordance with paragraph 2 of Clause 8.4 (*Payment by the Facility Agent*) hereof.

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3. Paragraph 1 of Clause 8.10 (*Pro Rata sharing*) hereof shall not be applicable to any of the following:

- (1) any payment received by any Lender under transfer under this Agreement.
- (2) any payment recovered by any Finance Party in arbitration against the Borrower in respect of the disputes arising under this Agreement, provided that: (i) such Financing Party shall have given prior notice of such arbitration proceeding to other Finance Parties, and (ii) other Finance Parties have not participated in the said arbitration within twenty (20) Business Days after receipt of such notices.

9. STAMP DUTIES AND FEES

9.1 Stamp Duties

All stamp duties in respect of this Agreement shall be borne by the Borrower and each Finance Party respectively pursuant to the laws and regulations.

9.2 No Syndication Fee

The Borrower shall not pay any fee in respect of the syndication loan under this Agreement, including but not limited to syndication fees such as commitment fees, arrangement fees, agency fees or undrawn fees, upfront fees, consulting fees and due diligence fees.

9.3 Costs and Expenses

Any costs and expenses (including legal fees, appraiser fees, etc.) incurred in relation to the execution of the Finance Documents and the syndication of the loan hereunder (including but not limited to the expenses incurred in relation to the preparation, negotiation, printing, enforcement and the syndication process of this Facility) shall be borne by each party respectively.

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10. REPRESENTATIONS OF FACTS

The Borrower makes the following representations to each Finance Party respectively on the Effective Date and on each Drawdown Date (except for paragraph 9 (*No Material Default*) and paragraph 10 (*No Material Litigation and Arbitration*) which shall be given only on the Effective Date) with reference to the facts and circumstances then subsisting:

1. Legal Status

The Borrower is a company duly incorporated and validly existing under the laws and regulations of the PRC.

2. Powers

The Borrower has necessary capacity for civil conduct and capacity for civil rights to own its assets, to carry out its operations and to enter into and perform the Finance Documents.

3. Authorization

All necessary internal authorizations for the Borrower to enter into and perform the Finance Documents have been duly obtained, and each of the Finance Documents has been duly executed by the authorized signatory of the Borrower.

4. Legality

Subject to the Legal Restraint, the obligations to be assumed by the Borrower under the Finance Documents constitute the legal, valid and binding obligations of the Borrower.

5. Breach of Other Documents

The entering into and performance by the Borrower of the Finance Documents do not and will not violate (a) its articles of association, and/or (b) any applicable law of the PRC.

6. Liquidation and Bankruptcy Events

The Borrower has not entered into any liquidation process, nor is there any bankruptcy event.

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7. Information

All written documents provided by the Borrower are true and valid in all material aspects as of the date of delivery of the same.

8. Material Licenses

The Borrower has obtained material licenses in relation to the Project pursuant to laws and regulations of the PRC.

9. No Material Default

To the Borrower's knowledge, as of the Effective Date of this Agreement, there is no material default of the Borrower under any agreement to which it is a party (material is defined as RMB500,000,000 (or its equivalent in other currency)).

10. No Material Litigation and Arbitration

To the Borrower's knowledge, as of the Effective Date of this Agreement, there is no litigation or arbitration of the Borrower that will produce any Material Adverse Effect (other than those of a frivolous or vexatious nature which the Borrower is contesting in good faith).

11. COVENANTS

The Borrower undertakes with each Finance Party as follows:

1. Compliance with Law

The Borrower shall ensure that any laws, regulations and rules relevant to its business and operation will be complied with in all material respects.

2. Permits

The Borrower shall obtain, maintain and comply with all government approvals or filings in relation to the Project.

3. Supply of Information

- (1) The Borrower shall, within one hundred and eighty (180) days after the end of each financial year or such longer period as consented by the Facility Agent (and the Facility Agent shall not unreasonably reject or delay to give such consent), provide the Facility Agent with its audited financial statements.

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- (2) The Borrower shall, within ninety (90) days after the end of each semi-financial year or such longer period as consented by the Facility Agent (and the Facility Agent shall not unreasonably reject or delay to give such consent), provide the Facility Agent with its unaudited financial statements in respect of that semi-financial year.
- (3) The Borrower shall provide the Facility Agent a statement with respect to the investment and construction progress of this Project at the end of each quarter.

4. Project Capital

The Borrower shall ensure that the ratio of the paid-up capital funds of the Project and the aggregate drawdown amount is no less than 2:8, and the Project capital funds shall be applied to the Project before the utilization of the Advance. The Borrower shall ensure that the Project capital has been fully paid on the earlier of: (1) the end of the Availability Period; or (2) the next Drawdown Date after the total drawn down amount reaches 90% of the Facility. For the avoidance of doubt, before the capital funds of the Project (i.e. 20% of the total investment amount set forth in the Shanghai foreign investment project filing certificate for the Project) is fully paid-up, the drawdown amount shall not exceed 90% of the Facility.

5. External Financing

If the Borrower incurs any other financing for the Project, proceeds of such financings shall firstly be used to repay the Facility hereunder (for the avoidance of doubts, this provision does not limit the Borrower from borrowing from its shareholders or other Affiliate Companies within the group; the Borrower may borrow from its shareholders or other Affiliate Companies within the group without repaying the Facility hereunder).

6. Equity Investment

Without the consent of the Majority Lenders, the Borrower shall not make any equity investment during the Loan Period.

7. Reduction of Registered Capital

There can be no reduction of the registered capital of the Borrower during the Loan Period without the prior consent of the Facility Agent.

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8. Negative Pledge

The Borrower shall not create any Security Interests over any of its Project related assets, except for:

- (1) Any lien arising in the ordinary course of trading, any statutory priority arising from construction projects and other Security Interests arising by operation of laws and regulations,
- (2) Security Interests arising in the ordinary course of business of the Borrower (including but not limited to any priority over goods, materials or equipment (acquired in an arm's length transaction) incurred or constituted by any title retention arrangement in the terms and conditions set out by the supplier or seller in relevant agreements),
- (3) Security Interests created according to the Finance Documents, or
- (4) the Security Interest created with the consent of the Majority Lenders (such consent shall not be unreasonably withheld or delayed by the Majority Lenders).

9. Material Default Notification

The Borrower shall notify the Facility Agent of material default under any liability of the Borrower to any third party (material is defined as exceeding the greater of (i) RMB750,000,000 (or its equivalent in other currency) or (ii) 20% of the Borrower's Net Assets).

10. Cost Overruns

All cost overruns in the construction of the Project (exceeding the financing amount hereunder) shall be self-funded (for the avoidance of doubt, financings from banks other than the Lenders shall not be considered self-funded) by the Borrower.

11. Revenue Collection Account Management

- (1) The Borrower shall collect all of its operating revenue directly into any of the Revenue Collection Accounts. The foregoing provision shall not apply to any failure to collect such revenues which failure is not attributable to the Borrower.

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- (2) Subject to the Account Control Agreement, the Borrower shall be entitled to withdraw, utilize or apply funds from any Revenue Collection Account for its daily business operation without limitation. Notwithstanding the above, the Borrower shall not transfer funds from the Revenue Collection Account to any of its accounts under the same account name opened with banks other than the Finance Parties, except for the following circumstances:
- (a) the transfer is used to repay loans for the purpose of the Project borrowed from the Borrower's shareholders or any other Affiliate Company within the group;
 - (b) the transfer is used for the purpose of repaying any of its working capital loans;
 - (c) the transfer is used for currency conversion for the purpose of payment of expenses related to the Project; or
 - (d) other transfers agreed by the Majority Lenders (the Majority Lenders shall not unreasonably refuse or delay to give such consent).

(3) Account Balance Undertaking

During the Loan Period, the Borrower shall ensure the total capital balance of the Revenue Collection Accounts is not less than the aggregate amount of principal and interest payable on the next Interest Payment Date and/or the next Repayment Date.

12. Conditions Subsequent

- (1) The Borrower shall complete the mortgage registration under the Mortgage Agreement over the Land within one-hundred and twenty (120) days after executing the Mortgage Agreement over the Land, provided that the Security Agent has, at the reasonable request of the Borrower, taken all necessary acts and delivered all necessary documents for the purpose of the mortgage registration.
- (2) The Borrower shall execute the relevant mortgage agreements and further complete the mortgage registration of the joint plant I mortgaged to the Security Agent within one-hundred and twenty (120) days upon obtaining the real estate certificate of the joint plant I of the Project, provided that the Security Agent has, at the reasonable request of the Borrower, taken all necessary acts and delivered all necessary documents for the purpose of the mortgage registration.

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- (3) The Borrower shall execute the relevant mortgage agreements and further complete the mortgage registration of the relevant plant mortgaged to the Security Agent within one-hundred and twenty (120) days upon obtaining all real estate certificates of the plant (except the joint plant I) the Project, provided that the Security Agent has, at the reasonable request of the Borrower, taken all necessary acts and executed and delivered all necessary documents for the purpose of the mortgage registration
- (4) If the Borrower has used its commercially reasonable endeavors but has not been able to complete the mortgage registrations required from item (1) through item (3) above due to the registration authority's rejection to accept the mortgage registrations for any reason beyond the control of the Borrower it shall not constitute an Event of Default of the Borrower. The Borrower shall continue to cooperate with the Security Agent to conduct the mortgage registration herein. Meanwhile, the Borrower shall ensure that it will not create any Security Interests over the land use right and the plant to be mortgaged under relevant mortgage agreements in favor of any third party other than the Lenders.
- (5) Conditions Subsequent in respect of the Borrower's Insurance
 - (a) The Borrower shall submit an endorsement showing that the Security Agent has been designated as the first beneficiary under the joint plant IV all-risks insurance within one-hundred and twenty (120) days after the Effective Date of this Agreement.
 - (b) If the Borrower insures any equipment related to the Project, the Security Agent shall be designated as the first beneficiary of such insurance.
 - (c) During the Loan Period, except the all-risk insurance of the joint plant I, the Borrower shall insure any construction in progress or plant buildings related to the Project and timely renew the insurance, and the Security Agent shall be designated as the first beneficiary of such insurance.

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- (d) Upon the occurrence of any insurance claim, (i) if the amount of insurance proceeds is less than or equal to 60% of the value of the insured assets of the Project, the Security Agent shall, after receiving the insurance proceeds, transfer the such insurance proceeds to the Borrower for replacing or repairing the corresponding insured assets; (ii) if the amount of insurance proceeds exceeds 60% of the value of the insured assets of the Project, the Borrower and the Security Agent will negotiate in good faith on the use of the insurance proceeds. If the Borrower has provided its replacement or repair plan of the relevant insured assets, the Security Agent shall assess such plan. If the Security Agent confirms that the plan is acceptable, the Security Agent shall transfer the relevant insurance proceeds to Borrower. If the Security Agent refuses to accept such plan, such insurance proceeds may be used to prepay the loans under this Agreement. However, the Security Agent shall not unreasonably refuse to accept such plan.

12. EVENTS OF DEFAULT

12.1 Events of Default

Only the following events constitute Events of Default by the Borrower:

1. Payment Default

The Borrower fails to pay any amount due and payable on the Repayment Date or Interest Payment Date in accordance with the provisions of this Agreement, and fails to remedy such default within twenty (20) days from the Repayment Date or Interest Payment Date.

2. Misappropriation

The Borrower misappropriates any Advance within the Loan Period and fails to remedy, including by using such misappropriated funds for a purpose set forth in the Finance Documents or repayment by Borrower of such misappropriated funds, within twenty (20) days upon occurrence of such misappropriation.

3. Misrepresentation

The representations or statements made in Clause 10 (*Representations of Facts*) hereof by the Borrower is untrue and causes a Material Adverse Effect, and the Borrower fails to remedy such default within forty-five (45) days from the date on which the Facility Agent issues a written notice to the Borrower.

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4. Breach of Other Obligation

- (a) The Borrower fails to perform the covenants made in Clause 11 (Covenants) hereof or comply with other obligations hereunder and causes a Material Adverse Effect, and fails to remedy such default within forty-five (45) days from the date on which the Facility Agent issues a written notice to the Borrower.
- (b) Notwithstanding the foregoing, it will not constitute an Event of Default by the Borrower under this Clause 12.1 solely on the grounds that Borrower failed to comply with item 11(3) of Article 11 (Covenants).

5. Bankruptcy Process

The Borrower is insolvent or enters into bankruptcy process and fails to remedy or terminate the bankruptcy process within sixty (60) days upon the occurrence of such events.

6. Enforcement Events

The assets of the Borrower with an aggregate value exceeding the greater of (i) RMB0750,000,000 (or its equivalent in another currency) or (ii) 20% of the Borrower's Net Assets are enforced, distressed, seized or frozen based on the final judgment of the court, and such actions are not discharged within sixty (60) days.

7. Cross Default

The Borrower fails to pay any uncontested indebtedness with an aggregate value exceeding the greater of (i) RMB750,000,000 (or its equivalent in another currency) or (ii) 20% of the Borrower's Net Assets on the maturity date or upon expiry of the grace period, and fails to remedy within one-hundred and eighty (180) days from the date on which the Facility Agent issues a written notice.

12.2 Remedies Available to the Finance Parties

1. Notices

- (1) Any Lender shall promptly notify the Facility Agent upon becoming aware of an Event of Default.
- (2) The Facility Agent shall notify each Lender upon being notified by the Borrower or any Lender of the occurrence of an Event of Default.

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- (3) The Facility Agent shall notify the Borrower upon being notified by any person other than the Borrower of the occurrence of an Event of Default, so that the Borrower can confirm and explain or make remedies.

2. Remedies

During the period when any Event of Default occurred and is continuing, the Facility Agent may (acting on the decisions of the Majority Lenders), after giving written notice to the Borrower, exercise one or more of the following rights in any order:

- (1) to grant any waiver or approve any remedy of the relevant Event of Default;
- (2) to declare suspension of all or any part of Advances requested in any Drawdown Notice which have not been drawn;
- (3) to cancel all or any part of Total Commitments; whereupon so declared the Commitment of each Lender shall be cancelled pro rata and the Total Commitments so cancelled may not be borrowed again;
- (4) to declare all or any Outstanding Advances together with all accrued interests, fees (if any) and other amounts hereunder immediately due and payable; and
- (5) to enforce the Security created under the Mortgage Agreement over the Land and any other Finance Documents.

3. Action by the Facility Agent

Each right of remedies hereunder or the right of any Finance Party to commence and continue any legal dispute resolution proceedings against the Borrower may be exercised through the Facility Agent.

4. Undertakings of the Finance Parties

- (1) Each Finance Party agrees not to exercise any of its rights under this Agreement in a way that would conflict with this Agreement.
- (2) Each Finance Party undertakes with each other Finance Party that, except where this Agreement specifically provides otherwise,
 - (i) it will not demand from or accept any payment of any type to be separately applied towards the satisfaction of any debt owing to it by the Borrower under this Agreement; and

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- (ii) it will not separately demand or accept any Security Interests or financial support with respect to any debt owing to it by the Borrower under this Agreement.

5. Deduction

When an Event of Default is continuing, each Finance Party shall have the right to deduct from any account opened by the Borrower with that Finance Party and transfer to the Facility Agent for pro rata sharing in accordance with Clause 8.10 (*Pro Rata Sharing*) of this Agreement.

13. RELATIONSHIP AMONG FINANCE PARTIES

13.1 Appointment of the Agent

- 1. Each of the other Finance Parties hereby irrecoverably appoints the Facility Agent to act as its agent under and in connection with this Agreement, and authorizes the Facility Agent to exercise the rights which are specifically delegated to the Facility Agent under this Agreement together with any other reasonable incidental rights.
- 2. Each of the other Finance Parties hereby authorizes the Security Agent to directly execute the Mortgage Agreement over the Land and any other Finance Documents to which the Security Agent is a party and the supplementary or amendment agreements thereto with the Borrower in accordance with the principles and relevant facts determined in this Agreement, or execute and submit the Mortgage Agreement over the Land and any other relevant Finance Documents in the form required by the local registration authority, or appropriately reduce the amount of the secured claims according to the requirements of the local registration authority to meet its internal requirements that the amount of secured claims must be lower than the evaluation value of the collateral.

13.2 Nature of Agency

- 1. The relationship among the Agent and other Finance Parties is that of principal and agent only.
- 2. The Agent is not the agent of the Borrower in any respect.

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13.3 Duties of the Facility Agent

1. The Facility Agent shall, within one (1) Business Day upon receipt of the originals or copies of any document from any party to this Agreement for any other party to this Agreement, forward the same to that other party; except where provided otherwise in this Agreement, the Facility Agent is not responsible for the adequacy, accuracy or completeness of the form and substance of any document it forwards to any other party to this Agreement.
2. The Facility Agent shall open and maintain accounts in connection with this Agreement and, upon demand by each Lender, provide that Lender with such accounts.
3. The Facility Agent shall be responsible for the management and control of making Advances and the payment, and the payment of principal and interest by the Borrower in accordance with Clause 8.1 (*Making Advances*), 8.2 (*Payment of Advances*) and Clause 8.4 (*Payment by the Facility Agent*) hereof.
4. The Facility Agent shall, within one (1) Business Day upon receipt of a notice from any party to this Agreement that the occurrence of an Event of Default, notify each Finance Party.
5. The Facility Agent shall notify each Finance Party within one (1) Business Day upon becoming aware of failure to make any payment due and payable by any party to this Agreement to any other Finance Party pursuant to this Agreement.
6. The Facility Agent shall, acting in accordance with the decisions of the Majority Lenders, organize each Finance Party to commence and/or participate in any arbitration or legal dispute resolution proceedings relating to this Agreement, provided that, each Lender shall have indemnified or made advances to the Facility Agent against any and all costs, fees, expenses (including but not limited to legal fees) and liabilities sustained or to be sustained or incurred by the Facility Agent in acting in accordance with such decisions.
7. The Facility Agent shall have no liability to any other party to this Agreement for any party's breach of any provision of this Agreement.
8. If any decision of the Majority Lenders or all the Lenders or acting in accordance with such decision contravenes or would contravene the laws and regulations, after giving prior notice to each Finance Party, the Facility Agent may not act in accordance with such decisions.
9. The Facility Agent shall perform each of its obligations under this Agreement with care and diligence.

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10. The Facility Agent’s obligations under the Finance Documents are solely operational and administrative in nature. The Facility Agent shall have no other obligations except as expressly provided in the Finance Documents.

13.4 Duties of the Security Agent

1. The Security Agent shall notify the Facility Agent of any notice, document or payment notice received by it (acting in its capacity as the Security Agent for the Finance Parties) from any obligor under any Finance Documents as soon as possible.
2. The Security Agent shall deliver to any other party any original or copy of any document delivered by any party of this Agreement to the other party through the Security Agent upon received such documents; unless otherwise agreed in this Agreement, the Security Agent shall not be responsible for reviewing the adequacy, accuracy or completeness of the format and content of any document delivered by it.
3. The Security Agent shall notify each Finance Party as soon as possible after receiving a notice from any party of this Agreement that an Event of Default has occurred.
4. The Security Agent has the authority to enter into each of the Finance Documents expressly required to be entered into by it.
5. The Security Agent holds the relevant Security only on behalf of the Finance Parties in accordance with the terms of the relevant Finance Documents.
6. The Security Agent shall enforce any Security or exercise any right, power, authority or discretion specifically vested in the Security Agent under or in connection with the Finance Documents.
7. The Security Agent’s obligations under the Finance Documents are solely operational and administrative in nature. The Security Agent shall have no other obligations except as expressly provided in the Finance Documents.

13.5 Rights of the Facility Agent

1. Unless it has the knowledge to the contrary, the Facility Agent may assume:
 - (1) any representation of facts made under or in connection with this Agreement by any other party to this Agreement is true, complete and accurate.
 - (2) no Event of Default is continuing.

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- (3) no other party to this Agreement has breached its obligation under this Agreement.
 - (4) any right vested in any other party to this Agreement or the Majority Lenders or all the Lenders has not been exercised.
- 2. The Facility Agent may engage, pay for and act in reliance on the advice and services of lawyers, accountants, appraisers, translators or other professional advisers as it deems necessary and accepted by all the Lenders.
 - 3. The Facility Agent may act in reliance on any communication or document believed by it to be true.
 - 4. The Facility Agent may disclose to any other party to this Agreement any information believed by it to be reasonably received pursuant to the provisions of this Agreement.

13.6 Independent Credit Appraisal and Subsequent Management of the Loan

Each Lender confirms that it has been and will continue to be solely responsible for making an independent investigation, review and assessment of the financial condition, creditworthiness, business, legal status and other conditions of the Borrower. Further, each Lender confirms that it has made independent judgments and decisions and will assume the risks of such judgments and decisions, including but not limited to:

- 1. investigation, review and assessment of the adequacy, accuracy or completeness of any information relating to any other party to this Agreement or the transactions contemplated under this Agreement whether such information is supplied to that Lender by the Facility Agent or the Lead Arranger;
- 2. investigation, review and assessment of the financial condition, creditworthiness, business, legal status or other conditions of any other party to this Agreement;
- 3. investigation, review and assessment of the legality, effectiveness, binding effect, sufficiency or enforceability of this Agreement or any document in connection therewith or any action taken or to be taken by any other party to this Agreement;
- 4. The Facility Agent and the Account Bank shall fulfill its supervisory responsibility of the accounts opened by Borrower under this Agreement; and each Finance Party shall independently fulfill the subsequent management responsibility of the loans, and may require material and information necessary for fulfilling such responsibilities through the Facility Agent.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

13.7 Agent and Lead Arranger as Lenders

If the Agent or the Lead Arranger is also a Lender, it shall be entitled to rights and subject to liabilities as a Lender in accordance with the provisions of this Agreement.

13.8 Syndication Conference

1. Decision-making Mechanism of the Lenders

- (1) In the circumstance that the decisions of the Majority Lenders or all the Lenders are expressly required pursuant to the provisions of this Agreement, any Lender may notify the Facility Agent upon becoming aware of its occurrence, whereupon the Facility Agent shall promptly notify each Lender and request decisions to be made upon receipt of such notice or upon becoming aware of the same.
- (2) Each Lender shall, upon receipt of a notice issued by the Facility Agent pursuant to this Clause 13.8 (*Syndication Conference*), notify the Facility Agent of its decisions within the time limit specified therein.
- (3) Unless otherwise provided in this Agreement, the Facility Agent shall act in accordance with the decisions of the Majority Lenders or all the Lenders pursuant to the provisions of this Agreement; the Facility Agent shall bear no liability to other parties to this Agreement for taking or refraining from any action if it acts in accordance with the decisions of the Majority Lenders or all the Lenders.
- (4) The decisions of the Majority Lenders or all the Lenders made in accordance with the provisions of this Agreement shall be binding on each Lender, and each Lender shall assist the Facility Agent in carrying out any such decision of the Majority Lenders or all the Lenders.
- (5) In the absence of a decision from the Majority Lenders or all the Lenders in accordance with the provisions of this Agreement, the Facility Agent shall make a preliminary settlement proposal in respect of the circumstance and solicit opinions of each Lender in accordance with the procedures described above. If any Lender fails to notify the Facility Agent of its decisions within the time limit specified in the notice issued by the Facility Agent, it shall be deemed as having approved such settlement proposal.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with "[***]" to indicate where omissions have been made.

- (6) The Facility Agent may (but is not obliged to) take or refrain from an action if it considers such action or inaction is in the best interest of the relevant Lenders.

2. Consent of all the Lenders

Except as otherwise provided in this Agreement, without the consent of all Lenders, no amendment to this Agreement shall:

- (1) change the Commitment, the Total Commitments or the currency of the Advances;
- (2) change the Loan Period;
- (3) a change of the Interest Rate or the Default Interest Rate, except as otherwise provided in this Agreement;
- (4) change the currency, the amount or the payment date of any sum payable to any Finance Party under this Agreement;
- (5) amend the definition of the "Majority Lenders";
- (6) amend Clause 17 (*Amendments and Waivers*) hereof.

3. Syndication Conference Procedures and Rules

- (1) Upon the circumstances where the Facility Agent shall act in accordance with the decisions of the Majority Lenders or (as the case may be) all the Lenders pursuant to this Agreement, the Facility Agent shall convene and preside over the syndication conference.
- (2) In addition to the circumstances stipulated in the first paragraph above, the Facility Agent shall be responsible for the convening of the syndication conference in time upon the following circumstances:
 - (a) any material matter deemed as necessary to be decided by convening a syndication conference by the Lead Arranger; or
 - (b) joint written proposal of the Lenders whose commitments aggregate one third or more of the Total Commitments.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with "[***]" to indicate where omissions have been made.

- (3) If the Facility Agent convenes a syndication conference, it shall give written notice to each Lender at least five (5) Business Days or a shorter period determined by the Facility Agent prior thereto. However, at the Facility Agent's discretion and in accordance with this Agreement, it may give the notice of the syndication conference in such manner that it deems to be positive for relevant Lenders. The notice of the conference shall include the time, place, manner and the proposal of the syndication conference.
- (4) The syndication conference may be held on site or by communications or by written consents (with the Facility Agent notifying each Lender by facsimile to get its consent). The manner of the conference will be decided by the Facility Agent and will be specified in the notice of the conference. However, to minimize expense, the Facility Agent shall choose to hold the conference by written consent to the extent possible. In the case of a communication conference, the specific method of communication and making written resolutions will be decided by the Facility Agent and will be specified in the notice of the conference.
- (5) If any of the Lenders fail to instruct the Facility Agent in relation to a matter to be decided by the Majority Lenders or by all the Lenders (as the case may be) before the date of its decision, it shall be deemed as having approved such matter.
- (6) Each Lender shall, within two (2) Business Days upon the receipt of the notice of conference, notify the Facility Agent whether it will attend the conference, and may submit the provisional proposal two (2) Business Days prior to the conference. The Facility Agent shall notify other Lenders of such provisional proposal.
- (7) Each Lender may appoint one or two authorized representatives and several general representatives to attend the syndication conference. All representatives may participate in discussions and offer opinions, but only the authorized representatives are entitled to vote on behalf of that Lender.
- (8) A valid resolution of the syndication conference shall be recorded in writing by the Facility Agent and affixed with the company chop of each Lender. An original of the valid resolution of the syndication conference shall be sent to each Lender. Not all the valid resolutions need to be disclosed to the Borrower unless it is related to the rights, obligations or other interests of the Borrower under this Agreement.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

4. Intercreditor Agreement

The Finance Parties may enter into an intercreditor agreement separately, provided that such agreement shall not prejudice any right or increase any obligation of the Borrower under this Agreement.

13.9 Compensation by the Lenders

Each Lender shall, within three (3) Business Days upon the request of the Facility Agent, make compensation to the Facility Agent against all reasonable costs, fees, losses, expenses (including legal fees) and liabilities (except those caused by the negligence or misconduct of the Facility Agent) incurred or to be incurred by the Facility Agent in acting as an agent pursuant to this Agreement in proportion to its Commitment Percentage.

13.10 Deduction by the Agent

If any Finance Party owes an amount to the Agent under this Agreement, the Agent may, after giving notice to that Finance Party, deduct an amount not exceeding that amount from any payment to that Finance Party which the Agent would have otherwise obliged to make under this Agreement and apply the amounts deducted towards the satisfaction of the amounts owed, and, the amounts so deducted shall be regarded as having been received by the indebted Finance Party.

13.11 Other Business

Each Finance Party (including its branches) may accept deposits from, make other loans to or engage in any other banking business with the Borrower.

13.12 Dealings with the Lender

Unless the Agent receives a notice from the relevant Lender issued in accordance with the provisions of this Agreement stating the contrary, it may assume that such Lender is entitled to payments under this Agreement.

14. TRANSFER

14.1 Transferee

This Agreement is binding and effective on each party hereto and their respective successors and assignees.

14.2 Transfer by the Borrower

Unless otherwise consented to by all Lenders, the Borrower may not transfer all or any of its rights or obligations under this Agreement.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

14.3 Transfer by the Lenders

Any Lender (the “**Transferring Lender**”) intending to transfer all or any of its rights and/or obligations hereunder to one or more financial institutions (the “**Transferee Bank**”) shall give at least ten (10) Business Days’ prior notice (the “**Transfer Notice**”) to the Borrower and the Facility Agent, and obtain the prior written consent of the Borrower. However, no prior written consent is required under the following circumstances: (1) the Transferring Lender transfers all or any of its rights and/or obligations hereunder to other Lenders; (2) the Transferring Lender transfers all or any rights and/or obligations hereunder to its branches or sub-branches (3) any transfer required by the Borrower in accordance with paragraph 3 of Clause 8.2 hereof and (4) an Event of Default has occurred and is continuing. If the Transferring Lender transfers all or any of its rights and/or obligations hereunder to other financial institutions other than the Finance Parties, other Finance Parties shall enjoy the priority to acquire the transfer upon the equal conditions.

14.4 Effecting a Transfer

The transfer made by a Lender in accordance with Clause 14.3 (*Transfer by the Lenders*) hereof shall take effect upon the date specified in a duly completed Transfer Certificate in the form and substance set out in Schedule 3 (*Form of Transfer Certificate*) hereof and executed by the Transferring Lender, Transferee Bank and the Facility Agent. The execution of a Transfer Certificate shall not be withheld or delayed by the Facility Agent.

14.5 Binding Effect of a Transfer

Any transfer effected and completed in accordance with this Agreement shall be binding on each party to this Agreement.

14.6 Consequences of a Transfer

From the date a transfer takes effect, the Transferee Bank becomes a Lender and to the extent as specified in the Transfer Certificate:

1. the Transferring Lender shall no longer enjoy rights and bear liabilities under this Agreement in relation to the transfer object; and
2. the Transferee Bank shall enjoy all the rights and bear all the obligations under this Agreement in relation to the transfer object.

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14.7 Limitation of Liabilities of a Transferring Lender

The Transferring Lender shall bear no liability to the Transferee Bank for any of the followings:

1. the duly execution, genuineness, accuracy, completeness, legality, effectiveness or enforceability of this Agreement or any other document in connection herewith;
2. the receivability of any payment due under this Agreement; and
3. the accuracy and completeness of the representations of facts made by any other party to this Agreement to any person under or in connection with this Agreement.

14.8 Further Limitation of Liabilities of a Transferring Lender

A Transferring Lender is not obliged to:

1. retrieve from any Transferee Bank any right and/or obligation which is already transferred to that Transferee Bank in accordance with provisions of this Agreement.
2. indemnify any Transferee Bank against any losses incurred by it as a result of the breach of any obligation by the Borrower or any other Finance Party under this Agreement.

14.9 Recording

The Facility Agent shall maintain a name list of each party to this Agreement, be responsible for registration of the transfer, record each transfer of the syndication loan, and shall promptly notify other parties of a transfer thereto.

14.10 Change of Lending Offices

Any Lender may change its Lending Office by giving the Borrower and the Facility Agent at least twenty (20) Business Days' prior notice.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

15. RELATIONSHIP OF RIGHTS AND OBLIGATIONS AMONG THE FINANCE PARTIES

15.1 Independence of Obligations

The obligations of each Finance Party under this Agreement are independent of each other. Failure by any Finance Party to perform its obligations under this Agreement does not discharge the obligations of any other Finance Party under this Agreement. No Finance Party shall have any responsibility to any other Finance Parties for their respective obligations under this Agreement.

15.2 Independence of Rights

The rights of each Finance Party under this Agreement are independent of each other. Any debt arising from time to time under this Agreement owing by any party to this Agreement to any Finance Party shall be a separate debt, but each Finance Party shall exercise its rights through the Facility Agent under this Agreement. No Finance Party shall refuse to fulfill any obligation under this Agreement on the grounds of the independence of rights.

16. CONFIDENTIALITY

16.1 Scope of Confidentiality

1. Confidentiality Obligation of the Finance Parties

Each Finance Party to the this Agreement agrees that it will not, and shall procure that its senior managers, directors, employees, affiliates, advisors and agents (each Finance Party may only disclose relevant information to the said persons when necessary) will not disclose, announce or otherwise publish to any third party any information including but not limited to provisions of the Finance Documents, this loan, the Project or Project agreement, the Borrower and its shareholders. Each Finance Party shall especially abide by the followings:

- (1) Each Finance Party to this Agreement shall ensure that its senior managers, directors, employees, affiliates, advisors and agents will not disclose, announce or otherwise publish (including but not limited to publishing in any social media (including microblog and Wechat)) to any third party any information relating to the Project and the transactions contemplated hereunder, and the price information herein shall not be disclosed or otherwise used by the foresaid person.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with "[***]" to indicate where omissions have been made.

- (2) Each Finance Party to this Agreement will not, and shall ensure that its senior managers, directors, employees, affiliates, advisors and agents will not, accept any interview by any media (including but not limited to any social media) in respect of the Project or the transactions contemplated hereunder or agree to report the same.

Any confidentiality agreement or agreement relating to information disclosure already signed by each party before the execution of this Agreement shall be still applicable to the confidential information of the Borrower provided by the Borrower or any third party during the negotiation, execution and performance of this Agreement. During the tenor of this Agreement and until two (2) years or any longer period as may be required by applicable laws and regulations after the termination or expiration of this Agreement, the terms and conditions contained in such confidentiality agreement or agreement relating to information disclosure shall remain valid and effective. In the event of any conflict between such confidentiality agreement or agreement relating to information disclosure and this Agreement, the provisions imposing stricter confidentiality obligations on Finance Parties shall always prevail.

However, the following disclosures made by the Finance Parties shall be exempted:

- (1) information already known to the public (other than by reason of that Finance Party's breach of this clause);
- (2) information disclosed in compliance with and to the extent required by competent government or regulatory authority according to laws and regulations, and the relevant disclosure shall be limited to the minimum extent as required by the competent government, regulatory authority and laws and regulations;
- (3) information disclosed in compliance with the listing rules of the stock exchange where it is listed, and the relevant disclosure shall be limited to the minimum extent as required by the listing rules of the stock exchange where it is listed;
- (4) information disclosed with the Borrower's prior written consent.

2. Confidentiality Obligation of the Borrower

The Borrower shall undertake confidentiality obligation in equal measure as required in paragraph 1 above with respect to information obtained from each Finance Party.

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16.2 Other Permitted Disclosure

Any Finance Party may disclose any of the following information to assignees consented to by the Borrower pursuant to Clause 14 (*Transfer*) hereof:

1. copies of this Agreement;
2. any information known to that Finance Party with respect to the Borrower, this Agreement and/or the transactions contemplated thereunder;

provided that, the party such confidential information to be disclosed to shall have undertaken with that Finance Party to comply with the confidentiality obligation under Clause 16 (*Confidentiality*) hereof prior to the receipt of any such confidential information.

17. AMENDMENTS AND WAIVERS

17.1 Application for Amendments and Waivers and Consent

1. If the Borrower makes an application for amendments and waivers to the provision of this Agreement, the Facility Agent shall, promptly notify each Lender and request decisions to be made upon receipt of such written application and other relevant documents.
2. If any Lender proposes to amend the provision of this Agreement, it shall firstly notify the Facility Agent, and the Facility Agent shall promptly notify other Lenders and request decisions to be made upon receipt of the notice. Where the amendments proposed by the Lender is related to the Borrower, the Facility Agent shall copy the notice to the Borrower and negotiate with the Borrower the amendments to the provisions of this Agreement on behalf of the syndicate in accordance with the relevant provisions of this Agreement.
3. For amendments or waivers proposed by the Borrower or any Lender, the Facility Agent shall determine if it requires consent of the Majority Lenders or all the Lenders pursuant to the relevant provisions of this Agreement.
4. The Facility Agent shall complete the decision process pursuant to Clause 13.8 (*Syndication Conference*) upon receipt of such application for amendments or waivers from the Borrower or any Lender. The final valid voting result shall be promptly notified to each Lender and the Borrower.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

17.2 Written Amendments

Any amendment to any provision of this Agreement shall be made in writing and a written amendment only takes effect upon execution by the Facility Agent ((as determined by all the Lenders or the Majority Lenders (as the case may be)) and the Borrower.

17.3 Consents by the Facility Agent

Notwithstanding the provision above, without the consent of the Facility Agent, no amendment to this Agreement shall:

1. amend Clause 8 (*Payments*), Clause 13 (*Relationship among Finance Parties*) or Clause 17 (*Amendments and Waivers*) hereof;
2. amend or waive any rights of the Facility Agent under this Agreement, or impose additional obligations on the Facility Agent.

18. NOTICES

18.1 Notices through the Facility Agent

All communications between the Borrower and any Finance Party with respect to this Agreement shall be made through the Facility Agent.

18.2 Methods of Notices

Any notice, demand or other document from one party to the other hereto pursuant to the provisions of this Agreement shall be made in writing and be delivered to that party at such correspondence address or email address and marked for the attention of the persons (if any) as that party may designate from time to time in writing. The initial address, telephone number, email address and contact persons designated by each party are set forth on the execution pages hereof.

18.3 Delivery of Notices

Any communication between each party to this Agreement in accordance with the provisions of this Agreement shall be deemed as having been received upon the satisfaction of the following conditions:

1. if delivered in person, at the time of actual delivery;
2. if transmitted by email, when received in legible form;

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3. if sent by mail, on the fifth (5) Business Day following the date of posting by registered mail at the correct address.

18.4 Change of Address

Any party to this Agreement shall promptly notify the Facility Agent of any change to its address, telephone number or email address. Any change to the aforesaid information of the Borrower will become effective upon notification of the Borrower to the Facility Agent. Upon receipt of such notice from any party to this Agreement, the Facility Agent shall forthwith notify the other parties hereto of any such change.

18.5 Language of Notices

Any notice under or in connection with this Agreement shall be prepared and issued in Chinese.

19. RIGHTS ACCUMULATIVE AND SEVERABILITY

19.1 Rights Accumulative

Neither failure to exercise nor delay in exercising on the part of any Finance Party any right under this Agreement shall operate as a waiver, nor shall any single or partial exercise of any right prevents that Finance Party from any further or otherwise exercise of any other rights. The rights and remedies provided in this Agreement are cumulative and not exclusive of any rights or remedies granted to any Finance Party by laws and regulations.

19.2 Severability

If at any time any provision of this Agreement is held to be illegal, invalid, or unenforceable in any respect, the legality, validity or enforceability of any other provisions of this Agreement shall not be affected or prejudiced.

20. DOCUMENTATION

20.1 Language

This Agreement is made and executed in Chinese; this English version is prepared for reference only; if there is any discrepancy, the Chinese version controls.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

20.2 Counterparts

This Agreement is executed in ten originals. Each Finance Party and the Borrower shall each keep one original, and each original shall have the same legal effect.

21. GOVERNING LAW AND DISPUTE RESOLUTION

21.1 Governing Law

This Agreement is governed by and shall be construed in accordance with the laws of the PRC (for the purpose of this Agreement the laws of the PRC shall not include the laws of Hong Kong Special Administrative Region, Macau Special Administrative Region and Taiwan Region).

21.2 Dispute Resolution

Disputes arising out of or in connection with this Agreement shall be submitted to the China International Economic and Trade Arbitration Commission, Shanghai Sub-Commission for arbitration, which shall be conducted in accordance with the arbitration rules in force at the time of the application for arbitration, and the number of arbitrators is three (3). In respect of the dispute between any Finance Party and the Borrower arising out of or in connection with this Agreement, the Facility Agent (acting on behalf of the Finance Party) and the Borrower, each as a party, shall appoint one arbitrator respectively, and the third arbitrator shall be jointly appointed by the Facility Agent (acting on behalf of the Finance Party) and the Borrower or appointed by the Chairman with joint authorization granted by the Facility Agent and the Borrower. The arbitral award shall be final and binding on all parties.

22. TAKING EFFECT

This Agreement shall take effect on the Effective Date.

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SCHEDULE 1 ORIGINAL COMMITMENT

Original Lenders	Original Commitment
Agricultural Bank of China Limited, Shanghai Changning Sub-branch	RMB2,250,000,000 (or the USD equivalent)
China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch	RMB2,250,000,000 (or the USD equivalent)
Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch	RMB2,250,000,000 (or the USD equivalent)
Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch	RMB2,250,000,000 (or the USD equivalent)
Total	RMB9,000,000,000 (or the USD equivalent)

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SCHEDULE 2 FORM OF DRAWDOWN NOTICE

[***]

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SCHEDULE 3 FORM OF TRANSFER CERTIFICATE

[***]

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APPENDIX: FORM FOR PORTIONS OF COMMITMENT BEING TRANSFERRED

Under the Total Commitments:

Commitment of the Transferring Lender Commitment being transferred [*] [*]

The Transferring Lender's portion in the Outstanding Portions being transferred

[*] [*]

Details of the Transferee Bank:

Name:

Lending Office:

Address for Notices:

Tel:

Telex:

Fax:

Attention:

[The Transferring Lender] [The Transferee Bank]

Authorized Signatory: Authorized Signatory:

_____(Company Chop) _____(Company Chop)

[The Facility Agent]

Authorized Signatory:

_____(Company Chop)

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RMB 9,000,000,000 (OR THE USD EQUIVALENT) FIXED ASSET SYNDICATION LOAN AGREEMENT

EXECUTION PAGE

Tesla (Shanghai) Co., Ltd.

(as Borrower)

Attention: Yu Xian

Address: 8F, Tower 3, Central Place, No.77 Jianguo Road, Chaoyang District, Beijing, China

Tel: [***]

Email: [***]

Authorized signatory:

/s/ Xiaotong Zhu _____

Name: Xiaotong Zhu

Company Chop

Title:

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RMB 9,000,000,000 (OR THE USD EQUIVALENT) FIXED ASSET SYNDICATION LOAN AGREEMENT

EXECUTION PAGE

China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch

(as Primary Lead Arranger, Facility Agent, Account Bank, Original Lender)

Attention: Lifan Yang

Address: Pudong New District Xinyuan South Road No 555 B-3

Tel: [***]

Email: [***]

Authorized signatory:

/s/ Qinghong Jin

Name: Qinghong Jin

Company Chop

Title:

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RMB 9,000,000,000 (OR THE USD EQUIVALENT) FIXED ASSET SYNDICATION LOAN AGREEMENT

EXECUTION PAGE

Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch
(as Joint Lead Arranger, Security Agent, Account Bank, Original Lender)

Attention: Jing Ouyang

Address: Shanghai Pudong New District Xinyuan South Road No 555

Tel: [***]

Email: [***]

Authorized signatory:

/s/ Jing Ouyang

Name: Jing Ouyang

Company Chop

Title:

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RMB 9,000,000,000 (OR THE USD EQUIVALENT) FIXED ASSET SYNDICATION LOAN AGREEMENT

EXECUTION PAGE

Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch

(as Joint Lead Arranger, Capital Account Bank, Original Lender)

Attention: Qian Huang

Address: China (Shanghai) Pilot Free Trade Zone Special Area Pudong New District Xinyuan South Road No 588
19th floor

Tel: [*]

Email: [*]

Authorized signatory:

/s/ Su'nan Wang _____

Name: Su'nan Wang

Company Chop

Title:

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RMB 9,000,000,000 (OR THE USD EQUIVALENT) FIXED ASSET SYNDICATION LOAN AGREEMENT

EXECUTION PAGE

Agricultural Bank of China Limited, Shanghai Changning Sub-branch

(as Joint Lead Arranger, Trade Finance Party, Original Lender)

Attention: Zhifeng Pan

Address: Shanghai Changning District Dingxi Road No 998

Tel: [***]

Email: [***]

Authorized signatory:

/s/ Li Xu _____

Name: Li Xu

Company Chop

Title:

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “***” to indicate where omissions have been made.

Schedules Listed Below Omitted Pursuant to Regulation S-K Item 601(a)(5)

Schedule 2: Form of Drawdown Notice

Schedule 3: Form of Transfer Certificate

Appendix: Form for Portions of Commitment Being Transferred

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Exhibit 10.86

English Convenience Translation
-Original Agreement has been executed in Mandarin Chinese-

Tesla (Shanghai) Co., Ltd.

(as **Borrower**)

China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch

(as **Primary Lead Arranger**)

Agricultural Bank of China Limited, Shanghai Changning Sub-branch

Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch

Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch

(as **Joint Lead Arrangers**)

China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch

(as **Facility Agent**)

Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch

(as **Security Agent**)

China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch

Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch

(as **Account Banks**)

Agricultural Bank of China Limited, Shanghai Changning Sub-branch

(as **Trade Finance Bank**)

Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch

(as **Capital Account Bank**)

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Agricultural Bank of China Limited, Shanghai Changning Sub-branch

China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch

Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch

Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch

(as Original Lenders)

SUPPLEMENTAL AGREEMENT

relating to a RMB Nine Billion (or its equivalent in USD)

fixed asset syndication loan agreement

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

THIS SUPPLEMENTAL AGREEMENT (the “**Supplemental Agreement**”) is made on December 18, 2019.

BETWEEN

- (1) Tesla (Shanghai) Co., Ltd., a limited liability company incorporated and existing under the laws of the PRC with its registered address at D203A, No.168 Tonghui Road, Nanhui New Town, Pudong New District, as borrower (the “**Borrower**”);
- (2) China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch as Primary Mandated Lead Arranger and Bookrunner (the “**Primary Lead Arranger**”);
- (3) Agricultural Bank of China Limited, Shanghai Changning Sub-branch, Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch and Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch as Joint Mandated Lead Arrangers and Bookrunners (the “**Joint Lead Arrangers**”, together with the Primary Lead Arranger referred to as the “**Lead Arrangers**”);
- (4) China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch as Facility Agent (the “**Facility Agent**”);
- (5) Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch as Security Agent (the “**Security Agent**”);
- (6) China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch as Account Bank A (the “**Account Bank A**”); Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch as Account Bank B (the “**Account Bank B**”, together with the Account Bank A referred to as the “**Account Banks**”);
- (7) Agricultural Bank of China Limited, Shanghai Changning Sub-branch as Trade Finance Bank (the “**Trade Finance Bank**”);
- (8) Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch as Capital Account Bank (the “**Capital Account Bank**”); and
- (9) Agricultural Bank of China Limited, Shanghai Changning Sub-branch, China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch, Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch and Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch as Original Lenders (each being a “**Original Lender**” and collectively referred to as the “**Original Lenders**”).

(each a “**Party**” and collectively the “**Parties**”)

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WHEREAS

- (1) Pursuant to a RMB 9,000,000,000 (or its equivalent in USD) fixed asset syndication loan agreement (the “**Initial Facility Agreement**”) entered into among, *inter alia*, the Borrower, the Lead Arrangers, the Facility Agent, the Security Agent, the Account Banks, the Trade Finance Bank, the Capital Account Bank and the Original Lenders dated December 18, 2019 (the “**Facility Agreement**”), the Original Lenders have agreed to make available to the Borrower a Facility up to the amount of RMB 9,000,000,000 (or its equivalent in USD) upon the terms and subject to the conditions of the Facility Agreement; and
- (2) The Parties agree to execute the Supplemental Agreement, as a supplement and amendment to the Facility Agreement.

IT IS AGREED as follows:

1. DEFINITIONS AND INTERPRETATIONS

In this Supplemental Agreement, terms and interpretations defined in the Facility Agreement shall, unless the context otherwise requires, have the same meanings when used herein.

2. SUPPLEMENT TO FACILITY AGREEMENT

The Parties hereby agree that Clause 3.1 of the Facility Agreement shall be amended and supplemented in the following manner:

The original clause as set out below:

3.1 *The Borrower shall apply the Advances drawn to the costs and expenses in relation to construction of the Project.*

IS HEREBY AMENDED AS

3.1 *The Borrower shall apply the Advances drawn mainly to the construction, development and operation of the Project land plot, including financing:*

- (1) *costs and expenses in relation to construction of the Project (including, among others, design, development, construction and remodeling);*
- (2) *costs and expenses in relation to purchase of equipment related to the production of vehicles and parts;*
- (3) *capital expenditure during the construction and operation of the Project, including but not limited to costs in connection with daily operation, lease of the warehouse for the Project (including such warehouses which are not located on the Project land), payment of wages, and other capital expenditures;*
- (4) *repayment of any intercompany loan (which has already been used) between the Affiliate Companies (including but not limited to the amount borrowed or to be borrowed by the Borrower from its Affiliate Company), provided that such intercompany loan between the*

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Affiliate Companies shall be used for the above purposes and the interest rate of such intercompany loan shall be in compliance with PRC laws;

(5) *repayment of any outstanding amount under any Permitted Trade Finance Facility; and*

(6) *repayment of any outstanding amount under any Existing Loan.*

3. ENTIRE AGREEMENT

Except for the amendments herein, no terms or conditions of the Facility Agreement shall be revised, amended or changed and shall remain in full force and effect. This Supplemental Agreement is an integral part of the Facility Agreement and shall constitute a Finance Document referred to in the Facility Agreement. Any reference to the Facility Agreement shall include references to the Facility Agreement and this Supplemental Agreement. If there is any inconsistency between this Supplemental Agreement and the Facility Agreement, this Supplemental Agreement will prevail.

4. EFFECTIVENESS

This Supplemental Agreement shall become effective upon duly signed by the authorized representative of the Parties and affixed with their official seals.

5. MISCELLANEOUS

5.1 This Supplemental Agreement is made and executed in Chinese; this English version is prepared for reference only; if there is any discrepancy, the Chinese version controls.

5.2 Clause 21 (*Governing Law and Dispute Resolution*) of the Facility Agreement shall apply to this Supplemental Agreement and shall be incorporated in this Supplemental Agreement as if they had been set out in full herein *mutatis mutandis*.

This Supplemental Agreement has been executed by the Parties hereto on the date stated at the beginning of this Supplemental Agreement.

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SUPPLEMENTAL AGREEMENT

relating to a RMB Nine Billion (or its equivalent in USD) fixed asset syndication loan agreement

EXECUTION PAGE

TESLA (SHANGHAI) CO., LTD.

(as Borrower)

Attention: Yu Xian

Address: 8F, Tower 3, Central Place, No.77 Jianguo Road, Chaoyang District, Beijing, China

Tel: [***]

Email: [***]

Authorized signatory:

/s/ Xiaotong Zhu

Name: Xiaotong Zhu

Title:

Company Chop

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SUPPLEMENTAL AGREEMENT

relating to a RMB Nine Billion (or its equivalent in USD) fixed asset syndication loan agreement

EXECUTION PAGE

China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch

(as Primary Lead Arranger, Facility Agent, Account Bank, Original Lender)

Attention: Lifan Yang

Address: Pudong New District Xinyuan South Road No 555 B-3

Tel: [***]

Email: [***]

Authorized signatory:

/s/ Qinghong Jin

Name: Qinghong Jin

Company Chop

Title:

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SUPPLEMENTAL AGREEMENT

relating to a RMB Nine Billion (or its equivalent in USD) fixed asset syndication loan agreement

EXECUTION PAGE

Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch

(as Joint Lead Arranger, Security Agent, Account Bank, Original Lender)

Attention: Jing Ouyang

Address: Shanghai Pudong New District Xinyuan South Road No 555

Tel: [***]

Email: [***]

Authorized signatory:

/s/ Jing Ouyang

Name: Jing Ouyang

Company Chop

Title:

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SUPPLEMENTAL AGREEMENT

relating to a RMB Nine Billion (or its equivalent in USD) fixed asset syndication loan agreement

EXECUTION PAGE

Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch

(as Joint Lead Arranger, Capital Account Bank, Original Lender)

Attention: Qian Huang

Address: China (Shanghai) Pilot Free Trade Zone Special Area Pudong New District Xinyuan South Road No 588 19th floor

Tel: [***]

Email: [***]

Authorized signatory:

/s/ Su'nan Wang

Name: Su'nan Wang

Company Chop

Title:

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SUPPLEMENTAL AGREEMENT

relating to a RMB Nine Billion (or its equivalent in USD) fixed asset syndication loan agreement

EXECUTION PAGE

Agricultural Bank of China Limited, Shanghai Changning Sub-branch

(as Joint Lead Arranger, Trade Finance Party, Original Lender)

Attention: Zhifeng Pan

Address: Shanghai Changning District Dingxi Road No 998

Tel: [***]

Email: [***]

Authorized signatory:

/s/ Li Xu

Name: Li Xu

Title:

Company Chop

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Exhibit 10.87

English Convenience Translation
-Original Agreement has been executed in Mandarin Chinese-

Tesla (Shanghai) Co., Ltd.

(as **Borrower**)

China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch

(as **Primary Lead Arranger**)

Agricultural Bank of China Limited, Shanghai Changning Sub-branch

Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch

Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch

(as **Joint Lead Arrangers**)

China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch

(as **Facility Agent**)

Agricultural Bank of China Limited, Shanghai Changning Sub-branch

(as **Trade Finance Bank**)

Financial Institutions set out in Schedule 1

(as **Original Lenders**)

SYNDICATION REVOLVING LOAN AGREEMENT
RMB Two Billion Two Hundred and Fifty Million
(or its equivalent in USD)

December 18, 2019

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THIS AGREEMENT is made in Shanghai on December 18, 2019 (the "**Effective Date**")

AMONG

(1) Tesla (Shanghai) Co., Ltd. as Borrower (the "**Borrower**")

Legal Address: D203A, No.168 Tonghui Road, Nanhui New Town, Pudong New District

Legal Representative: Xiaotong Zhu

(2) China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch as Primary Mandated Lead Arranger and Bookrunner (the "**Primary Lead Arranger**")

(3) Agricultural Bank of China Limited, Shanghai Changning Sub-branch, Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch, Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch as Joint Mandated Lead Arrangers and Bookrunners (the "**Joint Lead Arrangers**", together with the Primary Lead Arranger referred to as the **Lead Arrangers**")

(4) China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch as Facility Agent (the "**Facility Agent**")

(5) Agricultural Bank of China Limited, Shanghai Changning Sub-branch as Trade Finance Bank (the "**Trade Finance Bank**")

(6) The following financial institutions as Original Lenders (the "**Original Lenders**")

Agricultural Bank of China Limited, Shanghai Changning Sub-branch

Legal Address: No.998 West Dingxi Road, Changning District, Shanghai

Responsible Person: Li Xu

Lending Office: Agricultural Bank of China Limited, Shanghai Changning Sub-branch

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China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch

Legal Address: Room 104-105, Building 1, Lingang Chengtou Building, 333 Huanhu West First Road, Pudong New District

Responsible Person:

Lending Office: China Construction Bank Corporation, Shanghai Pudong Branch

Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch

Legal Address: No.555, South Xinyuan Road, Pudong New District, Shanghai

Responsible Person: Sheng Zhan

Lending Office: Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch

Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch

Legal Address: No.588 South Pudong Road, China (Shanghai) Pilot Free Trade Zone

Responsible Person: Su'nan Wang

Lending Office: Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch

IT IS HEREBY AGREED, after mutual and friendly discussion and based on the true intention of each party, as follows.

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1. DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this Agreement,

Financial Year	means a period commencing from and including January 1st and ending on and including December 31st of each calendar year.
Commitment Percentage	means, in relation to each Lender, the percentage proportion of that Lender's Commitment for the time being to the Total Commitment for the time being.
Commitment	means, <ul style="list-style-type: none"> (i) in relation to each Original Lender, the Original Commitment of such Original Lender minus the participation of such Original Lender in all the Advances already drawn and not been prepaid as well as its participation in the Total Commitment cancelled and transferred under the terms of this Agreement; (ii) in relation to each Transferee Bank, any part of the Commitment transferred to such Transferee Bank minus the participation of such Transferee Bank in all Advances already drawn and not been prepaid as well as its participation in the Total Commitment cancelled and transferred under the terms of this Agreement.
Original Commitment	means, in relation to each Original Lender, the original commitment amount of that Original Lender in RMB (or its equivalent in USD) set out in Schedule 1 hereof.
Loan Period	has the meaning specified in Clause 6 of this Agreement.
Outstanding Advances	means the aggregate amount of all outstanding Advances drawn in RMB or USD.
Loan Account	means the account opened by the Borrower with the Facility Agent for the purpose of collecting the Advances.
Facility	has the meaning given to it in Clause 2 hereof.
Lender	means the Original Lender and/or the Transferee Bank.

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Loan Prime Rate (LPR)	means the market quoted interest rate issued by the People’s Bank of China on 20 November 2019 or by any authority which is authorized by the People’s Bank of China (currently the National Interbank Funding Center), i.e. 4.15%.
Interest Rate	means, (i)in relation to each Advance drawn in RMB, the interest rate referred to in paragraph 1 of Clause 5.1 (<i>Interest Rate</i>) hereof. (ii)in relation to each Advance drawn in USD, the interest rate referred to in paragraph 2 of Clause 5.1 (<i>Interest Rate</i>) hereof.
Advance	means any principal amount borrowed or to be borrowed (by any means) under the provisions hereof.
Security Interests	means any mortgage, pledge, lien, deposit or any agreement or arrangement having the effect or for the purpose of a collateral security (whether such agreement or arrangement is governed by or construed in accordance with the laws of the PRC or otherwise).
Majority Lenders	means, at any time, (i)if the Facility has not been drawn, a Lender or the Lenders (either individually or collectively) whose aggregate Commitments represent more than 50% (exclusive of 50%) of the Total Commitment; (ii)if the Facility has been drawn, a Lender or the Lenders (either individually or collectively) whose aggregate Outstanding Advances represent more than 50% (exclusive of 50%) of the total Outstanding Advances under the Facility.

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Legal Restraint	<p>means,</p> <ul style="list-style-type: none"> (i) the principle that fair compensation may be granted or denied in accordance with the discretion of the court; (ii) in relation to bankruptcy, reorganization and other legal events that may generally affect creditors, the laws that enforce the performance of priority obligations; (iii) statutory limitation period of legal restrictions; (iv) defense for set-off and counterclaims; and (v) any other restriction or reservation under any other generally applicable law set out in the legal opinion delivered to the Facility Agent under this Agreement. <p>means the Overdue Rate and/or the Misappropriation Rate.</p>
Default Interest Rate	
Affiliate Company	means in relation to any person, a Subsidiary of that person or a Holding Company of that person or any other Subsidiary of any Holding Company of that person.
Borrower's Account	Counterparty means any such account set out in paragraph 2 part 2 of Schedule 2 <i>Form of Drawdown Notice</i>) hereof.
Lending Office	means, in relation to each Finance Party, its office through which it performs its obligation hereunder including such changed Lending Office pursuant to Clause 14.10 (<i>Change of Lending Offices</i>) hereof.
Available Commitment	means, with respect to a Drawdown Notice, the Total Commitment minus the aggregate amount of all requested Advances in any prior Drawdown Notice for which the Drawdown Date has not yet occurred.
Holding Company	means, in relation to a company, enterprise or entity, any other company, enterprise or entity in respect of which it is a Subsidiary.
London Business Day	means a day on which a bank located in London, United Kingdom is open for general business (other than a Saturday or Sunday).
USD Benchmark Rate	means, on the two (2) London Business Days prior to a relevant Drawdown Date, the one year London Interbank Offered Rate administered by ICE Benchmark Administration Limited (or any other person which takes over the administration of that rate) for USD quoted at 11:00 a.m. (London time) displayed on pages LIBOR01 or LIBOR02 of the Thomson Reuters screen (or any replacement Thomson Reuters page which displays that rate) or on the appropriate page of such other information service which publishes that rate from time to time in place of Thomson Reuters.

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Misappropriation Rate	has the meaning given to it in paragraph 2 of Clause 5.2 Default Interest Rate hereof.
PBOC	means the People’s Bank of China and/ or its branches.
Finance Party	means each of the Lead Arrangers, the Facility Agent, the Trade Finance Bank, and the Lenders.
Effective Date	has the meaning given to it at the beginning of this Agreement.
Transferee Bank	has the meaning given to it in Clause 14.3 (Transfer by the Lenders) hereof.
Drawdown Date	means each date on which any Advance is drawn pursuant to this Agreement.
Drawdown Notice	means, in relation to each Advance, a notice of drawing duly completed and delivered by the Borrower pursuant to Clause 4.1 (Drawdown Notice) hereof.
Prepayment Notice	has the meaning given to it in Clause 7 (Prepayment) hereof.
Event of Default	means any circumstance set out in Clause 12.1 (Events of Default) hereof.
Project	means the project contained in the Shanghai foreign investment project filing certificate (Project Shanghai Code: 310115MA1H9YGWX20195E2101001) (including the updates and changes of such filing certificate from time to time after the Effective Date) of the Borrower, i.e. the Tesla Gigafactory Project (First Phase) First Stage which is located at 1/1 Hill, 8th Street, Luchaogang Town, Shanghai.
Business Day	means a day on which each Lender is open for general business (other than a Saturday or Sunday (excluding Saturdays and Sundays adjusted to be business days pursuant to national regulations) or any other statutory holidays).

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Permitted Facility	Trade Finance	means, each Finance Party agrees that the Borrower may subsequently apply to the Trade Finance Bank for issuing and/or conducting letter of credit (and subsequent import bills advance), domestic bank's acceptance bill, guarantee of non-financing nature and providing notes pool service, provided that at the end of any day within the Loan Period, the sum of the aggregate of outstanding amount under such trade finance facility and Outstanding Advances under this Agreement shall not exceed the maximum aggregate principal amount of the Facility set forth in Clause 2
Overdue Rate		has the meaning given to it in paragraph 1 of Clause 5.2 <i>Default Interest Rate</i> hereof.
PRC		means the People's Republic of China.
Material Adverse Effect		means, in the reasonable opinion of all the Lenders, a material adverse effect on: (i) the ability of the Borrower to perform its payment obligations hereunder; or (ii) the legality, validity or enforceability of this Agreement.
Total Commitments		means the aggregate amount of each Lender's Commitment.
Net Assets		means at any time of determination thereof, the owner's equity of the Borrower as set forth in the most recent financial statements of the Borrower delivered to the Facility Agent pursuant to this Agreement.
Transferring Lender		has the meaning given to it in Clause 14.3 <i>(Transfer by the Lenders)</i> hereof.
Transfer Notice		has the meaning given to it in Clause 14.3 <i>(Transfer by the Lenders)</i> hereof.
Transfer Certificate		means a transfer certificate duly executed and delivered by the Transferring Lender, the Transferee Bank and the Facility Agent substantially in the form and substance set out in Schedule 3 <i>(Form of Transfer Certificate)</i> hereof.

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Subsidiary means, in relation to any company, corporation or entity, a company, corporation or entity:

- (i) which is controlled, directly or indirectly, by the first mentioned company corporation or entity;
- (ii) more than half the issued equity share capital, registered capital or equity share capital of which is beneficially owned, directly or indirectly, by the first mentioned company, corporation or entity; or
- (iii) which is a Subsidiary of another Subsidiary of the first mentioned company, corporation or entity,

and, for this purpose, a company, corporation or entity shall be treated as being controlled by another if that other company, corporation or entity is able to direct its affairs and/or to control the composition of its board of directors or equivalent body.

Final Maturity Date means the date falling one (1) year from the first Drawdown Date.

1.2 Principles of Interpretation

In this Agreement:

1. The table of contents and clause headings inserted herein are for ease of reference only and may be ignored in construing this Agreement.
2. The "assets" shall be construed to include all present and future, tangible or intangible asset, property, income, revenue, account receivable or each right and benefit in any asset.
3. A "person" shall be construed to include any individual, company, partnership, sole proprietary or any other corporate or unincorporated person or any other legal entity.
4. An Event of Default is "continuing" if such Event of Default has occurred and is neither eliminated nor remedied or waived pursuant to the provisions hereof.
5. A "month" means a period starting on one day in a calendar month and ending on the numerically corresponding day in the next calendar month, provided that, if there is no such numerically corresponding day, it shall end on the last day in such next calendar month.
6. The RMB "equivalent" amount denominated in USD shall be converted at the exchange rate at the central parity of the spot exchange rate for USD to RMB published or authorized to publish by the PBOC on 11:00 a.m. (Beijing Time) on the previous Business Day of the calculation date, however, if no such central parity rate is available at that time, the exchange rate shall be determined through reasonable negotiation between the Facility Agent and the Borrower.

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7. The "liquidation" or "bankruptcy" of any person shall be construed to include any identical or comparable legal process carried out in accordance with the laws of its place of incorporation or its place of business, and "entering into" such legal process includes such legal process being commenced upon resolution of such person or upon application of any person.
8. Parties hereto or any other person shall include its legal successors and permitted assignees.
9. This Agreement, any other agreement or document shall be construed to include itself and any amendment, modification, substitution or supplement thereof made from time to time in accordance with the provisions therein.

2. THE FACILITY

The Lenders agree to make available to the Borrower a Facility (the "**Facility**") in a maximum aggregate principal amount of RMB2,250,000,000 (IN WORDS: RMB two billion two hundred and fifty million) (or the equivalent amount drawn in USD); whether the Facility is drawn in RMB or USD shall be determined according to the Borrower's actual needs.

3. PURPOSES

3.1 The Borrower shall apply the Advances drawn to finance:

1. costs and expenses during the production process, including the purchase of raw materials related to the production of vehicles and parts;
2. operating expenses for the production process, including but not limited to the daily operation, wages, taxes, service fees and consulting fees;
3. repayment of any intercompany loan (which has already been used) between the Affiliate Companies (including but not limited to the amount borrowed or to be borrowed by the Borrower from its Affiliate Company), provided that such intercompany loan between the Affiliate Companies shall be used for the above purposes and the interest rate of such intercompany loan shall be in compliance with PRC laws; and
4. repayment of any outstanding amount under any Permitted Trade Finance Facility.

3.2 The Borrower shall apply each Advance in accordance with the purposes agreed in this Agreement; and the Borrower shall not misappropriate any Advance.

3.3 The Borrower shall use each Advance in accordance with the purposes permitted by laws and regulations of the PRC. The Advance shall not be used for fixed assets investment.

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4. DRAWDOWN

4.1 Drawdown Notice

1. The Borrower may (based on its actual needs) draw one or more Advances under the Facility before the Final Maturity Date in accordance with the provisions hereof. There is no limitation on the number of drawdowns, but the total Outstanding Advances shall not exceed the Facility amount described in Clause 2.
2. In connection with a request for an Advance, the Borrowers shall deliver a Drawdown Notice to the Facility Agent no later than three (3) Business Days prior to the proposed Drawdown Date specified in the Drawdown Notice.
3. Each Drawdown Notice shall satisfy the following requirements: (1) it shall be substantially in the form and substance set out in Schedule 2 (*Form of Drawdown Notice*) hereof; (2) it shall be executed by the authorized signatory of the Borrower (including through handwritten signing or affixing chop of legal representative or affixing signature chop) or by stamping the Borrower's official seal; (3) the proposed Drawdown Date specified in the Drawdown Notice shall be a Business Day; (4) the proposed drawdown amount shall not exceed the Available Commitment as of the date of such Drawdown Notice.
4. The Facility Agent shall, within one (1) Business Day upon receipt of each Drawdown Notice, forward such Drawdown Notice to each Lender and notify each Lender of its Commitment Percentage for that Advance.

4.2 Conditions Precedent to the First Drawdown

Before the first drawdown, the Borrower shall provide the Facility Agent with the following documents or complete the following matters to the satisfaction of the Facility Agent, and the Facility Agent shall not unreasonably refuse or delay to confirm the satisfaction of each following conditions precedent:

1. this original copy of the executed version of this Agreement;
2. photocopies (stamped with the Borrower's official seal) of the latest business license, the latest receipt of filing for foreign invested enterprise issued by the Ministry of Commerce and the latest articles of association, and the original copy of the board resolutions of the Borrower;
3. the Loan Account has been opened;

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4. the Shanghai foreign investment project filing certificate stamped with the Borrower’s official seal relating to the Project obtained by the Borrower (the Project Shanghai Code: 310115MA1H9YGWX20195E2101001);
5. a photocopy of the evidence that the Borrower has obtained the environment impact assessment filling certificate in relation to the Project, stamped with the Borrower’s official seal;
6. a photocopy of the production permit stamped with the Borrower’s official seal; and
7. if the Advance will be in the form of an entrusted payment, submitting a scanned copy of the relevant agreement or proof of use of the entrusted payment or photocopies of such evidence stamped with the Borrower’s official seal.

4.3 Conditions Precedent to Each Drawdown

The Facility Agent shall confirm that each of the conditions precedent set out below have been satisfied (such conditions precedent shall be satisfactory to the Facility Agent provided that such satisfaction shall not be unreasonably withheld or delayed), or the Facility Agent (as decided by the Majority Lenders) has otherwise waived the condition. Upon the confirmation of the Facility Agent, each Lender shall make its participation in each Advance through the Facility Agent in accordance with its then-applicable Commitment Percentage pursuant to Clause 8.1 (*Making Advances*) hereof.

1. The Facility Agent has received a Drawdown Notice issued by the Borrower in accordance with Clause 4.1 (*Drawdown Notice*) hereof.
2. On the proposed Drawdown Date specified in the Drawdown Notice, each representation of fact made by the Borrower in Clause 10 (*Representations of Facts*) hereof is true and correct in all material respects with the same effect as though such representation of fact had been made on such Drawdown Date, it being understood and agreed that any representation of fact which by its terms is made as of a specified date shall be required to be true and correct in all material respects only as of such specified date.
3. On the proposed Drawdown Date specified in the Drawdown Notice, no Event of Default by the Borrower has occurred and is continuing.
4. The Borrower has provided the scanned copies of the Shanghai Foreign Investment Project Filing Certificate and Environment Influence Assessment Filing Certificate or photocopies of such certificates stamped with the Borrower’s official seal, except where such evidence has already been provided.

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5. If the Advance will be in the form of an entrustment payment pursuant to Section 8.2, the scanned copies of relevant supporting agreements or documents evidencing the loan purpose or photocopies of such evidence stamped with the Borrower's official seal are provided where entrusted payment applies, except where such materials have already been provided.

5. INTEREST

5.1 Interest Rate

1. The rate of interest accrued on each Advance drawn in RMB under the Facility shall be fixed interest rate, which shall be the Loan Prime Rate (LPR) minus 0.4525%, i.e. 3.6975% per year (tax included (for the avoidance of doubt, excluding foreign taxes, similarly hereinafter)).
2. The rate of interest accrued on each Advance drawn in USD under the Facility shall be the USD Benchmark Rate plus 80 BPs (tax included). If the USD Benchmark Rate is no longer announced, the Borrower and the Facility Agent shall endeavor to establish an alternate rate of interest to such USD Benchmark Rate that gives due consideration to the then prevailing market convention for determining a rate of interest for the Facility in the PRC in USD at such time, and shall enter into an amendment to this Agreement to reflect such alternate rate of interest (including any mathematical or other adjustments to the benchmark (if any) incorporated therein), provided that, if such alternate rate of interest as so determined would be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement. Notwithstanding any contrary provisions in this Agreement, such amendment shall become effective without any further action or consent of any other party to this Agreement so long as the Facility Agent shall not have received, within five (5) Business Days of the date that the Facility Agent shall have posted such proposed amendment to all Lenders, a written notice from the Majority Lenders stating that such Majority Lenders object to such amendment.

5.2 Default Interest Rate

1. If the Borrower fails to pay any sum payable on its due date pursuant to the provisions of this Agreement, interest shall accrue on such overdue sum, from its due date up to the date of full payment, at 130% of the Interest Rate (the "**Overdue Rate**").
2. If any Advance is misappropriated by the Borrower, interest shall accrue on the misappropriated Advance, from the date of misappropriation until the date such misappropriation is remedied, including by using such misappropriated funds for a purpose set forth in this Agreement or repayment by Borrower of such misappropriated funds, at 150% of the Interest Rate (the "**Misappropriation Rate**").

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3. If an Advance is both overdue and misappropriated, the Default Interest Rate accrued thereon shall be the higher of two.
4. The interest accruing on the overdue and/or misappropriated Advances shall be compounded pursuant to relevant regulations by the PBOC.

5.3 Calculation of Interest

1. Interest and/or default interest on any amounts outstanding hereunder shall accrue from day to day and be computed on the basis of a 360-day year and the actual number of days elapsed.
2. Interest shall accrue on each Advance commencing on the date on which such Advance is paid to the Loan Account.

5.4 Payment of Interest

1. The Borrower shall pay accrued interest calculated in accordance with Clause 5.1 (*Interest Rate*) and Clause 5.3 (*Calculation of Interest*) hereof on the repayment date of each Advance.
2. As per the requirements of the Borrower, the Lenders shall issue the interest value-added tax invoices to the Borrower pursuant to applicable laws and regulations.

6. REPAYMENT

6.1 Loan Period

The loan period under this Agreement shall commence from the first Drawdown Date and end on and include the Final Maturity Date (the "**Loan Period**").

6.2 Repayment

The Borrower may repay any and all Outstanding Advances prior to the Final Maturity Date, and the Borrower shall repay all Outstanding Advances on the Final Maturity Date.

7. PREPAYMENT

The Borrower shall notify the Facility Agent in writing (the "**Prepayment Notice**") no later than three (3) Business Days prior to the proposed prepayment date. The Borrower shall not pay any penalties or any fees regarding any such prepayment, provided that prepayment of the principal amount shall be made together with the interest accrued on such prepaid principal through the applicable prepayment date. Any repayment amount made prior to the Final Maturity Date could be borrowed again.

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The amount of each prepayment by the Borrower shall not be less than RMB 10 million, but the foregoing shall not apply if the Borrower prepays all Outstanding Advances in full. Amounts prepaid shall offset the principal of the Outstanding Advances in the reverse order.

8. PAYMENTS

8.1 Making Advances

Each Lender participating in an Advance pursuant to Clause 4.3 (*Conditions Precedent to Each Drawdown*) hereof shall pay its portion of the Advance denominated in RMB or USD under the Facility to the Facility Agent's account no later than 11:00 a.m. (Beijing Time) on the proposed Drawdown Date specified in the Drawdown Notice in respect of that Advance in accordance with its Commitment Percentage at the time of the Advance.

8.2 Payment of Advances

1. If any single payment amount exceeds RMB 10,000,000 (IN WORDS: RMB ten million) or its equivalent in USD, payment by the Lenders upon entrustment shall be applicable. Entrusted payment by the Lenders refers to the Facility Agent paying out each Advance to the Loan Account on each Drawdown Date in accordance with the Borrower's Drawdown Notice and entrustment of payment, and transferring the relevant Advance to Borrower's Counterparty Accounts on the same day.

In the event of payment by the Lenders upon entrustment, the Borrower shall submit the agreements in relation to the entrusted payment or documents evidencing the loan usage to the Facility Agent before each Advance is made.

2. In addition to the circumstances stipulated in the first paragraph above, the Borrower may choose to make payment by either independent payment or entrusted payment at its own discretion. Independent payment by the Borrower means that the Facility Agent pays out the Advances to the Loan Account in accordance with the Borrower's Drawdown Notice and the Borrower independently pays out to the Borrower's counterparties in satisfaction of the usage purposes stipulated herein. The Borrower shall present the relevant payment list evidencing the payment status of each Advance on a quarterly basis to the Facility Agent.
3. If the Borrower has met the conditions under Article 4 (*Drawdown*) of this Agreement, the Lenders and the Facility Agent are obliged to make the Advance on the proposed Drawdown Date (whether in the case of autonomous payment to the Loan Account or entrusted payment to the Borrower's Counterparty Account). If any Lender fails to make the Advance on time, the Borrower shall have the right to require such Lender to transfer its Commitment, and the other Lenders have the priority right to such transfer.

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8.3 Payment by the Borrower

The Borrower shall pay any amount payable under this Agreement on its due date no later than 11:00 a.m. (Beijing Time) to the account designated by the Facility Agent at the Effective Date.

8.4 Payment by the Facility Agent

1. The Facility Agent shall pay to the Loan Account the proceeds of the relevant Advances actually received by it pursuant to Clause 8.1 (*Making Advances*) hereof and shall make payment pursuant to Clause 8.2 (*Payment of Advances*) hereof no later than 3:00 p.m. (Beijing Time) on each Drawdown Date, , and the Facility Agent is obliged to notify the payment of such Advance to each Lender.
2. The Facility Agent shall pay to the account of each Finance Party each amount actually received by it pursuant to Clause 8.3 (*Payment by the Borrower*) hereof on the date of receipt in such order and amount as set out in Clause 8.5 (*Distribution Order*) hereof.

8.5 Distribution Order

Unless otherwise required by the laws and regulations, each payment received by the Facility Agent under Clause 8.3 (*Payment by the Borrower*) hereof shall be distributed in such order and amount as set out below:

1. in and towards any interest (including but not limited to any compound interest and default interest) due and payable by the Borrower hereunder pro rata among the Lenders; and
2. in and towards any principal amount due and payable by the Borrower hereunder pro rata among the Lenders.

8.6 Advances

1. If no Material Adverse Event has occurred, the Facility Agent shall advance any amount on behalf of any Lender within the Facility Agent's Commitment when such Lender is unable to make the payment. The Facility Agent is entitled to recover such advances from the Lender who fails to make the payment.
2. Other Lenders may make payment on account of any Lender who fails to make payment, and such other Lenders making such advances are entitled to recover from such Lender who fails to make the payment.

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8.7 Currency of Payments

1. Any Advance shall be drawn in the currency specified in the Drawdown Notice in respect of that Advance.
2. Any interest accruing on any amounts shall be made in the currency in which such amounts are denominated.
3. Any repayment or prepayment of any Outstanding Advances shall be made in the currency in which such Outstanding Advances are denominated.
4. Other payments payable under this Agreement shall be made in the currency specified herein.

8.8 Set Off

The Borrower shall not exercise any right of set-off when making any payment under this Agreement.

8.9 Non Business Days

If a payment payable is made on a day that is not a Business Day pursuant to the provisions of this Agreement, it shall be made on the next succeeding Business Day.

8.10 Pro Rata Sharing

1. Except as otherwise provided in Clause 8.10 (*Pro Rata Sharing*) hereof, if any Finance Party (the “**Recovering Lender**”) receives any payment due and payable under this Agreement from the Borrower which is contrary to Clause 8.3 (*Payment by the Borrower*) hereof, that Recovering Lender shall forthwith notify the Facility Agent of the receipt of such amount (the “**Sharing Amount**”) on the date of receipt and promptly transfer such Sharing Amount to the Facility Agent.
2. The Facility Agent shall treat the Sharing Amount received by it pursuant to paragraph 1 of Clause 8.10 (*Pro Rata Sharing*) hereof as being made by the Borrower and shall distribute the same to each Finance Party’s account in accordance with paragraph 2 of Clause 8.4 (*Payment by the Facility Agent*) hereof.
3. Paragraph 1 of Clause 8.10 (*Pro Rata sharing*) hereof shall not be applicable to any of the following:
 - (1) any payment received by any Lender under transfer under this Agreement.

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- (2) any payment recovered by any Finance Party in arbitration against the Borrower in respect of the disputes arising under this Agreement, provided that: (i) such Financing Party shall have given prior notice of such arbitration proceeding to other Finance Parties, and (ii) other Finance Parties have not participated in the said arbitration within twenty (20) Business Days after receipt of such notices.

9. STAMP DUTIES AND FEES

9.1 Stamp Duties

All stamp duties in respect of this Agreement shall be borne by the Borrower and each Finance Party respectively pursuant to the laws and regulations.

9.2 No Syndication Fee

The Borrower shall not pay any fee in respect of the syndication loan under this Agreement, including but not limited to syndication fees such as commitment fee, arrangement fees, agency fees or undrawn fees, upfront fees, consulting fees and due diligence fees.

9.3 Costs and Expenses

Any costs and expenses (including legal fees, appraiser fees, etc.) incurred in relation to the execution of this Agreement and the syndication of the loan hereunder (including but not limited to the expenses incurred in relation to the preparation, negotiation, printing, enforcement and the syndication process of this Facility) shall be borne by each party respectively.

10. REPRESENTATIONS OF FACTS

The Borrower makes the following representations to each Finance Party respectively on the Effective Date and on each Drawdown Date (except for paragraph 8 (*No Material Default*) and paragraph 9 (*No Material Litigation and Arbitration*)) which shall only be given on the Effective Date) with reference to the facts and circumstances then subsisting:

1. Legal Status

The Borrower is a company duly incorporated and validly existing under the laws and regulations of the PRC.

2. Powers

The Borrower has necessary capacity for civil conduct and capacity for civil rights to own its assets, to carry out its operations and to enter into and perform this Agreement.

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3. Authorization

All necessary internal authorizations for the Borrower to enter into and perform this Agreement have been duly obtained, and this Agreement has been duly executed by the authorized signatory of the Borrower.

4. Legality

Subject to the Legal Restraint, the obligations to be assumed by the Borrower under this Agreement constitute the legal, valid and binding obligations of the Borrower.

5. Breach of Other Documents

The entering into and performance by the Borrower of this Agreement do not and will not violate (a) its articles of association, and/or (b) any applicable law of the PRC.

6. Liquidation and Bankruptcy Events

The Borrower has not entered into any liquidation process, nor is there any bankruptcy event.

7. Information

All written documents provided by the Borrower are true and valid in all material aspects as of the date of delivery of the same.

8. No Material Default

To the Borrower's knowledge, as of the Effective Date of this Agreement, there is no material default of the Borrower under any agreement to which it is a party (material is defined as RMB500,000,000 (or its equivalent in other currency)).

9. No Material Litigation and Arbitration

To the Borrower's knowledge, as of the Effective Date of this Agreement, there is no litigation or arbitration of the Borrower that will produce any Material Adverse Effect (other than those of a frivolous or vexatious nature which the Borrower is contesting in good faith).

11. COVENANTS

The Borrower undertakes with each Finance Party as follows:

1. Compliance with Law

The Borrower shall ensure that any laws, regulations and rules relevant to its business and operation will be complied with in all material respects.

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2. Supply of Information

- (1) The Borrower shall, within one hundred and eighty (180) days after the end of each financial year or such longer period as consented by the Facility Agent (and the Facility Agent shall not unreasonably reject or delay to give such consent), provide the Facility Agent with its audited financial statements.
- (2) The Borrower shall, within ninety (90) days after the end of each semi-financial year or such longer period as consented by the Facility Agent (and the Facility Agent shall not unreasonably reject or delay to give such consent), provide the Facility Agent with its unaudited financial statements in respect of that semi-financial year.

3. Reduction of Registered Capital

There can be no reduction of the registered capital of the Borrower during the Loan Period without the prior consent of the Facility Agent.

4. Negative Pledge

The Borrower shall not create any Security Interests over any of its inventory or account receivable, except for:

- (1) Any lien arising in the ordinary course of trading, any statutory priority and other Security Interests arising by operation of laws and regulations,
- (2) Security Interests arising in the ordinary course of business of the Borrower (including but not limited to any priority over goods, materials or equipment (acquired in an arm's length transaction) incurred or constituted by any title retention arrangement in the terms and conditions set out by the supplier or seller in relevant agreements),
- (3) Security Interests created according to this Agreement, or
- (4) Security Interests created with the consent of the Majority Lenders (such consent shall not be unreasonably withheld or delayed by the Majority Lenders).

5. Material Default Notification

The Borrower shall notify the Facility Agent of material default under any liability of the Borrower to any third party (material is defined as exceeding the greater of (i) RMB750,000,000 (or the equivalent in other currency) or (ii) 20% of the Borrower's Net Assets).

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

12. EVENTS OF DEFAULT

12.1 Events of Default

Only the following events constitute Events of Default by the Borrower:

1. Payment Default

The Borrower fails to pay any amount due and payable on the Final Maturity Date in accordance with the provisions of this Agreement, and fails to remedy such default within twenty (20) days from the Final Maturity Date.

2. Misappropriation

The Borrower misappropriates any Advance within the Loan Period and fails to remedy, including by using such misappropriated funds for a purpose set forth in this Agreement or repayment by Borrower of such misappropriated funds, within twenty (20) days upon occurrence of such misappropriation.

3. Misrepresentation

The representations or statements made in Clause 10 (~~Representations of Facts~~) hereof by the Borrower is untrue and causes a Material Adverse Effect, and the Borrower fails to remedy such default within forty-five (45) days from the date on which the Facility Agent issues a written notice to the Borrower.

4. Breach of Other Obligation

The Borrower fails to perform the covenants made in Clause 11 (~~Covenants~~) hereof or comply with other obligations hereunder and causes a Material Adverse Effect, and fails to remedy such default within forty-five (45) days from the date on which the Facility Agent issues a written notice to the Borrower.

5. Bankruptcy Process

The Borrower is insolvent or enters into bankruptcy process and fails to remedy or terminate the bankruptcy process within sixty (60) days upon the occurrence of such events.

6. Enforcement Events

The assets of the Borrower with an aggregate value exceeding the greater of (i) RMB750,000,000 (or its equivalent in another currency) or (ii) 20% of the Borrower's Net Assets are enforced, distressed, seized or frozen based on the final judgment of the court, and such actions are not discharged within sixty (60) days.

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7. Cross Default

The Borrower fails to pay any uncontested indebtedness with an aggregate value exceeding the greater of (i) RMB750,000,000 (or its equivalent in another currency) or (ii) 20% of the Borrower's Net Assets on the maturity date or upon expiry of the grace period, and fails to remedy within one-hundred and eighty (180) days from the date on which the Facility Agent issues a written notice.

12.2 Remedies Available to the Finance Parties

1. Notices

- (1) Any Lender shall promptly notify the Facility Agent upon becoming aware of an Event of Default.
- (2) The Facility Agent shall notify each Lender upon being notified by the Borrower or any Lender of the occurrence of an Event of Default.
- (3) The Facility Agent shall notify the Borrower upon being notified by any person other than the Borrower of the occurrence of an Event of Default, so that the Borrower can confirm and explain or make remedies.

2. Remedies

During the period when any Event of Default occurred and is continuing, the Facility Agent may (acting on the decisions of the Majority Lenders), after giving written notice to the Borrower, exercise one or more of the following rights in any order:

- (1) to grant any waiver or approve any remedy of the relevant Event of Default;
- (2) to declare suspension of all or any part of Advances requested in any Drawdown Notice which have not been drawn;
- (3) to cancel all or any part of Total Commitments; whereupon so declared the Commitment of each Lender shall be cancelled pro rata and the Total Commitments so cancelled may not be borrowed again; and
- (4) to declare all or any Outstanding Advances together with all accrued interests, fees (if any) and other amounts hereunder immediately due and payable.

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3. Action by the Facility Agent

Each right of remedies hereunder or the right of any Finance Party to commence and continue any legal dispute resolution proceedings against the Borrower may be exercised through the Facility Agent.

4. Undertakings of the Finance Parties

(1) Each Finance Party agrees not to exercise any of its rights under this Agreement in a way that would conflict with this Agreement.

(2) Each Finance Party undertakes with each other Finance Party that, except where this Agreement specifically provides otherwise,

(i) it will not demand from or accept any payment of any type to be separately applied towards the satisfaction of any debt owing to it by the Borrower under this Agreement; and

(ii) it will not separately demand or accept any Security Interests or financial support with respect to any debt owing to it by the Borrower under this Agreement.

5. Deduction

When an Event of Default is continuing, each Finance Party shall have the right to deduct from any account held by the Borrower with that Finance Party and transfer to the Facility Agent for pro rata sharing in accordance with Clause 8.10 (*Pro Rata Sharing*) of this Agreement.

13. RELATIONSHIP AMONG FINANCE PARTIES

13.1 Appointment of the Agent

Each of the other Finance Parties hereby irrecoverably appoints the Facility Agent to act as its agent under and in connection with this Agreement, and authorizes the Facility Agent to exercise the rights which are specifically delegated to the Facility Agent under this Agreement together with any other reasonable incidental rights.

13.2 Nature of Agency

1. The relationship among the Facility Agent and other Finance Parties is that of principal and agent only.
2. The Facility Agent is not the agent of the Borrower in any respect.

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13.3 Duties of the Facility Agent

1. The Facility Agent shall, within one (1) Business Day upon receipt of the originals or copies of any document from any party to this Agreement for any other party to this Agreement, forward the same to that other party; except where provided otherwise in this Agreement, the Facility Agent is not responsible for the adequacy, accuracy or completeness of the form and substance of any document it forwards to any other party to this Agreement.
2. The Facility Agent shall open and maintain accounts in connection with this Agreement and, upon demand by each Lender, provide that Lender with such accounts.
3. The Facility Agent shall be responsible for the management and control of making Advances and the payment, and the payment of principal and interest by the Borrower in accordance with Clause 8.1 (*Making Advances*), 8.2 (*Payment of Advances*) and Clause 8.4 (*Payment by the Facility Agent*) hereof.
4. The Facility Agent shall, within one (1) Business Day upon receipt of a notice from any party to this Agreement that the occurrence of an Event of Default, notify each Finance Party.
5. The Facility Agent shall notify each Finance Party within one (1) Business Day upon becoming aware of failure to make any payment due and payable by any party to this Agreement to any other Finance Party pursuant to this Agreement.
6. The Facility Agent shall, acting in accordance with the decisions of the Majority Lenders, organize each Finance Party to commence and/or participate in any arbitration or legal dispute resolution proceedings relating to this Agreement, provided that, each Lender shall have indemnified or made advances to the Facility Agent against any and all costs, fees, expenses (including but not limited to legal fees) and liabilities sustained or to be sustained or incurred by the Facility Agent in acting in accordance with such decisions.
7. The Facility Agent shall have no liability to any other party to this Agreement for any party's breach of any provision of this Agreement.
8. If any decision of the Majority Lenders or all the Lenders or acting in accordance with such decision contravenes or would contravene the laws and regulations, after giving prior notice to each Finance Party, the Facility Agent may not act in accordance with such decisions.
9. The Facility Agent shall perform each of its obligations under this Agreement with care and diligence.
10. The Facility Agent's obligations under this Agreement are solely operational and administrative in nature. The Facility Agent shall have no other obligations except as expressly provided in this Agreement.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

13.4 Rights of the Facility Agent

1. Unless it has the knowledge to the contrary, the Facility Agent may assume:
 - (1) any representation of facts made under or in connection with this Agreement by any other party to this Agreement is true, complete and accurate.
 - (2) no Event of Default is continuing.
 - (3) no other party to this Agreement has breached its obligation under this Agreement.
 - (4) any right vested in any other party to this Agreement or the Majority Lenders or all the Lenders has not been exercised.
2. The Facility Agent may engage, pay for and act in reliance on the advice and services of lawyers, accountants, appraisers, translators or other professional advisers as it deems necessary and accepted by all the Lenders.
3. The Facility Agent may act in reliance on any communication or document believed by it to be true.
4. The Facility Agent may disclose to any other party to this Agreement any information believed by it to be reasonably received pursuant to the provisions of this Agreement.

13.5 Independent Credit Appraisal and Subsequent Management of the Loan

Each Lender confirms that it has been and will continue to be solely responsible for making an independent investigation, review and assessment of the financial condition, creditworthiness, business, legal status and other conditions of the Borrower. Further, each Lender confirms that it has made independent judgments and decisions and will assume the risks of such judgments and decisions, including but not limited to:

1. investigation, review and assessment of the adequacy, accuracy or completeness of any information relating to any other party to this Agreement or the transactions contemplated under this Agreement whether such information is supplied to that Lender by the Facility Agent or the Lead Arranger;
2. investigation, review and assessment of the financial condition, creditworthiness, business, legal status or other conditions of any other party to this Agreement;

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3. investigation, review and assessment of the legality, effectiveness, binding effect, sufficiency or enforceability of this Agreement or any document in connection therewith or any action taken or to be taken by any other party to this Agreement;
4. The Facility Agent shall fulfill its supervisory responsibility of the accounts opened by Borrower under this Agreement; and each Finance Party shall independently fulfill the subsequent management responsibility of the loans, and may require material and information necessary for fulfilling such responsibilities through the Facility Agent.

13.6 Facility Agent and Lead Arranger as Lenders

If the Facility Agent or the Lead Arranger is also a Lender, it shall be entitled to rights and subject to liabilities as a Lender in accordance with the provisions of this Agreement.

13.7 Syndication Conference

1. Decision-making Mechanism of the Lenders
 - (1) In the circumstance that the decisions of the Majority Lenders or all the Lenders are expressly required pursuant to the provisions of this Agreement, any Lender may notify the Facility Agent upon becoming aware of its occurrence, whereupon the Facility Agent shall promptly notify each Lender and request decisions to be made upon receipt of such notice or upon becoming aware of the same.
 - (2) Each Lender shall, upon receipt of a notice issued by the Facility Agent pursuant to this Clause 13.7 (*Syndication Conference*), notify the Facility Agent of its decisions within the time limit specified therein.
 - (3) Unless otherwise provided in this Agreement, the Facility Agent shall act in accordance with the decisions of the Majority Lenders or all the Lenders pursuant to the provisions of this Agreement; the Facility Agent shall bear no liability to other parties to this Agreement for taking or refraining from any action if it acts in accordance with the decisions of the Majority Lenders or all the Lenders.
 - (4) The decisions of the Majority Lenders or all the Lenders made in accordance with the provisions of this Agreement shall be binding on each Lender, and each Lender shall assist the Facility Agent in carrying out any such decision of the Majority Lenders or all the Lenders.

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- (5) In the absence of a decision from the Majority Lenders or all the Lenders in accordance with the provisions of this Agreement, the Facility Agent shall make a preliminary settlement proposal in respect of the circumstance and solicit opinions of each Lender in accordance with the procedures described above. If any Lender fails to notify the Facility Agent of its decisions within the time limit specified in the notice issued by the Facility Agent, it shall be deemed as having approved such settlement proposal.
- (6) The Facility Agent may (but is not obliged to) take or refrain from an action if it considers such action or inaction is in the best interest of the relevant Lenders.

2. Consent of all the Lenders

Except as otherwise provided in this Agreement, without the consent of all Lenders, no amendment to this Agreement shall:

- (1) change the Commitment, the Total Commitments or the currency of the Advances;
- (2) change the Loan Period;
- (3) change the Interest Rate or the Default Interest Rate, except as otherwise provided in this Agreement;
- (4) change the currency, the amount or the payment date of any sum payable to any Finance Party under this Agreement;
- (5) amend the definition of the "Majority Lenders";
- (6) amend Clause 17 (*Amendments and Waivers*) hereof.

3. Syndication Conference Procedures and Rules

- (1) Upon the circumstances where the Facility Agent shall act in accordance with the decisions of the Majority Lenders or (as the case may be) all the Lenders pursuant to this Agreement, the Facility Agent shall convene and preside over the syndication conference.
- (2) In addition to the circumstances stipulated in the first paragraph above, the Facility Agent shall be responsible for the convening of the syndication conference in time upon the following circumstances:
 - (a) any material matter deemed as necessary to be decided by convening a syndication conference by the Lead Arranger; or
 - (b) joint written proposal of the Lenders whose commitments aggregate one third or more of the Total Commitments.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

- (3) If the Facility Agent convenes a syndication conference, it shall give written notice to each Lender at least five (5) Business Days or a shorter period determined by the Facility Agent prior thereto. However, at the Facility Agent’s discretion and in accordance with this Agreement, it may give the notice of the syndication conference in such manner that it deems to be positive for relevant Lenders. The notice of the conference shall include the time, place, manner and the proposal of the syndication conference.
- (4) The syndication conference may be held on site or by communications or by written consents (with the Facility Agent notifying each Lender by facsimile to get its consent). The manner of the conference will be decided by the Facility Agent and will be specified in the notice of the conference. However, to minimize expense, the Facility Agent shall choose to hold the conference by written consent to the extent possible. In the case of a communication conference, the specific method of communication and making written resolutions will be decided by the Facility Agent and will be specified in the notice of the conference.
- (5) If any of the Lenders fail to instruct the Facility Agent in relation to a matter to be decided by the Majority Lenders or by all the Lenders (as the case may be) before the date of its decision, it shall be deemed as having approved such matter.
- (6) Each Lender shall, within two (2) Business Days upon the receipt of the notice of conference, notify the Facility Agent whether it will attend the conference, and may submit the provisional proposal two (2) Business Days prior to the conference. The Facility Agent shall notify other Lenders of such provisional proposal.
- (7) Each Lender may appoint one or two authorized representatives and several general representatives to attend the syndication conference. All representatives may participate in discussions and offer opinions, but only the authorized representatives are entitled to vote on behalf of that Lender.
- (8) A valid resolution of the syndication conference shall be recorded in writing by the Facility Agent and affixed with the company chop of each Lender. An original of the valid resolution of the syndication conference shall be sent to each Lender. Not all the valid resolutions need to be disclosed to the Borrower unless it is related to the rights, obligations or other interests of the Borrower under this Agreement.

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4. Intercreditor Agreement

The Finance Parties may enter into an intercreditor agreement separately, provided that such agreement shall not prejudice any right or increase any obligation of the Borrower under this Agreement.

13.8 Compensation by the Lenders

Each Lender shall, within three (3) Business Days upon the request of the Facility Agent, make compensation to the Facility Agent against all reasonable costs, fees, losses, expenses (including legal fees) and liabilities (except those caused by the negligence or misconduct of the Facility Agent) incurred or to be incurred by the Facility Agent in acting as an agent pursuant to this Agreement in proportion to its Commitment Percentage.

13.9 Deduction by the Facility Agent

If any Finance Party owes an amount to the Facility Agent under this Agreement, the Facility Agent may, after giving notice to that Finance Party, deduct an amount not exceeding that amount from any payment to that Finance Party which the Facility Agent would have otherwise obliged to make under this Agreement and apply the amounts deducted towards the satisfaction of the amounts owed, and, the amounts so deducted shall be regarded as having been received by the indebted Finance Party.

13.10 Other Business

Each Finance Party (including its branches) may accept deposits from, make other loans to or engage in any other banking business with the Borrower.

13.11 Dealings with the Lender

Unless the Facility Agent receives a notice from the relevant Lender issued in accordance with the provisions of this Agreement stating the contrary, it may assume that such Lender is entitled to payments under this Agreement.

14. TRANSFER

14.1 Transferee

This Agreement is binding and effective on each party hereto and their respective successors and assignees.

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14.2 Transfer by the Borrower

Unless otherwise consented to by all Lenders, the Borrower may not transfer all or any of its rights or obligations under this Agreement.

14.3 Transfer by the Lenders

Any Lender (the “**Transferring Lender**”) intending to transfer all or any of its rights and/or obligations hereunder to one or more financial institutions (the “**Transferee Bank**”) shall give at least ten (10) Business Days’ prior notice (the “**Transfer Notice**”) to the Borrower and the Facility Agent, and obtain the prior written consent of the Borrower. However, no prior written consent is required under the following circumstances: (1) the Transferring Lender transfers all or any of its rights and/or obligations hereunder to other Lenders; (2) the Transferring Lender transfers all or any rights and/or obligations hereunder to its branches or sub-branches, (3) any transfer required by the Borrower in accordance with paragraph 3 of Clause 8.2 hereof, and (4) an Event of Default has occurred and is continuing. If the Transferring Lender transfers all or any of its rights and/or obligations hereunder to other financial institutions other than the Finance Parties, other Finance Parties shall enjoy the priority to acquire the transfer upon the equal conditions.

14.4 Effecting a Transfer

The transfer made by a Lender in accordance with Clause 14.3 (*Transfer by the Lenders*) hereof shall take effect upon the date specified in a duly completed Transfer Certificate in the form and substance set out in Schedule 3 (*Form of Transfer Certificate*) hereof and executed by the Transferring Lender, Transferee Bank and the Facility Agent. The execution of a Transfer Certificate shall not be withheld or delayed by the Facility Agent.

14.5 Binding Effect of a Transfer

Any transfer effected and completed in accordance with this Agreement shall be binding on each party to this Agreement.

14.6 Consequences of a Transfer

From the date a transfer takes effect, the Transferee Bank becomes a Lender and to the extent as specified in the Transfer Certificate:

1. the Transferring Lender shall no longer enjoy rights and bear liabilities under this Agreement in relation to the transfer object; and
2. the Transferee Bank shall enjoy all the rights and bear all the obligations under this Agreement in relation to the transfer object.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

14.7 Limitation of Liabilities of a Transferring Lender

The Transferring Lender shall bear no liability to the Transferee Bank for any of the followings:

1. the duly execution, genuineness, accuracy, completeness, legality, effectiveness or enforceability of this Agreement or any other document in connection herewith
2. the receivability of any payment due under this Agreement; and
3. the accuracy and completeness of the representations of facts made by any other party to this Agreement to any person under or in connection with this Agreement.

14.8 Further Limitation of Liabilities of a Transferring Lender

A Transferring Lender is not obliged to:

1. retrieve from any Transferee Bank any right and/or obligation which is already transferred to that Transferee Bank in accordance with provisions of this Agreement.
2. indemnify any Transferee Bank against any losses incurred by it as a result of the breach of any obligation by the Borrower or any other Finance Party under this Agreement.

14.9 Recording

The Facility Agent shall maintain a name list of each party to this Agreement, be responsible for registration of the transfer, record each transfer of the syndication loan, and shall promptly notify other parties of a transfer thereto.

14.10 Change of Lending Offices

Any Lender may change its Lending Office by giving the Borrower and the Facility Agent at least twenty (20) Business Days' prior notice.

15. RELATIONSHIP OF RIGHTS AND OBLIGATIONS AMONG THE FINANCE PARTIES

15.1 Independence of Obligations

The obligations of each Finance Party under this Agreement are independent of each other. Failure by any Finance Party to perform its obligations under this Agreement does not discharge the obligations of any other Finance Party under this Agreement. No Finance Party shall have any responsibility to any other Finance Parties for their respective obligations under this Agreement.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with "[***]" to indicate where omissions have been made.

15.2 Independence of Rights

The rights of each Finance Party under this Agreement are independent of each other. Any debt arising from time to time under this Agreement owing by any party to this Agreement to any Finance Party shall be a separate debt, but each Finance Party shall exercise its rights through the Facility Agent under this Agreement. No Finance Party shall refuse to fulfill any obligation under this Agreement on the grounds of the independence of rights.

16. CONFIDENTIALITY

16.1 Scope of Confidentiality

1. Confidentiality Obligation of the Finance Parties

Each Finance Party to the this Agreement agrees that it will not, and shall procure that its senior managers, directors, employees, affiliates, advisors and agents (each Finance Party may only disclose relevant information to the said persons when necessary) will not disclose, announce or otherwise publish to any third party any information including but not limited to provisions of this Agreement, this loan, the Project or Project agreement, the Borrower and its shareholders. Each Finance Party shall especially abide by the followings:

- (1) Each Finance Party to this Agreement shall ensure that its senior managers, directors, employees, affiliates, advisors and agents will not disclose, announce or otherwise publish (including but not limited to publishing in any social media (including microblog and Wechat)) to any third party any information relating to the Project and the transactions contemplated hereunder, and the price information herein shall not be disclosed or otherwise used by the foresaid person.
- (2) Each Finance Party to this Agreement will not, and shall ensure that its senior managers, directors, employees, affiliates, advisors and agents will not, accept any interview by any media (including but not limited to any social media) in respect of the Project or the transactions contemplated hereunder or agree to report the same.

Any confidentiality agreement or agreement relating to information disclosure already signed by each party before the execution of this Agreement shall be still applicable to the confidential information of the Borrower provided by the Borrower or any third party during the negotiation, execution and performance of this Agreement. During the tenor of this Agreement and until two (2) years or any longer period as may be required by applicable laws and regulations after the termination or expiration of this Agreement, the terms and conditions contained in such confidentiality agreement or agreement relating to information disclosure shall remain valid and effective. In the event of any conflict between such confidentiality agreement or agreement relating to information disclosure and this Agreement, the provisions imposing stricter confidentiality obligations on Finance Parties shall always prevail.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

However, the following disclosures made by the Finance Parties shall be exempted:

- (1) information already known to the public (other than by reason of that Finance Party's breach of this clause);
- (2) information disclosed in compliance with and to the extent required by competent government or regulatory authority according to laws and regulations, and the relevant disclosure shall be limited to the minimum extent as required by the competent government, regulatory authority and laws and regulations;
- (3) information disclosed in compliance with the listing rules of the stock exchange where it is listed, and the relevant disclosure shall be limited to the minimum extent as required by the listing rules of the stock exchange where it is listed;
- (4) information disclosed with the Borrower's prior written consent.

2. Confidentiality Obligation of the Borrower

The Borrower shall undertake confidentiality obligation in equal measure as required in paragraph 1 above with respect to information obtained from each Finance Party.

16.2 Other Permitted Disclosure

Any Finance Party may disclose any of the following information to assignees consented to by the Borrower pursuant to Clause 14 (*Transfer*) hereof:

1. copies of this Agreement;
2. any information known to that Finance Party with respect to the Borrower, this Agreement and/or the transactions contemplated thereunder;

provided that, the party such confidential information to be disclosed to shall have undertaken with that Finance Party to comply with the confidentiality obligation under Clause 16 (*Confidentiality*) hereof prior to the receipt of any such confidential information.

17. AMENDMENTS AND WAIVERS

17.1 Application for Amendments and Waivers and Consent

1. If the Borrower makes an application for amendments and waivers to the provision of this Agreement, the Facility Agent shall, promptly notify each Lender and request decisions to be made upon receipt of such written application and other relevant documents.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with "[***]" to indicate where omissions have been made.

2. If any Lender proposes to amend the provision of this Agreement, it shall firstly notify the Facility Agent, and the Facility Agent shall promptly notify other Lenders and request decisions to be made upon receipt of the notice. Where the amendments proposed by the Lender is related to the Borrower, the Facility Agent shall copy the notice to the Borrower and negotiate with the Borrower the amendments to the provisions of this Agreement on behalf of the syndicate in accordance with the relevant provisions of this Agreement.
3. For amendments or waivers proposed by the Borrower or any Lender, the Facility Agent shall determine if it requires consent of the Majority Lenders or all the Lenders pursuant to the relevant provisions of this Agreement.
4. The Facility Agent shall complete the decision process pursuant to Clause 13.7 (*Syndication Conference*) upon receipt of such application for amendments or waivers from the Borrower or any Lender. The final valid voting result shall be promptly notified to each Lender and the Borrower.

17.2 Written Amendments

Any amendment to any provision of this Agreement shall be made in writing and a written amendment only takes effect upon execution by the Facility Agent ((as determined by all Lenders or the Majority Lenders (as the case may be)) and the Borrower.

17.3 Consents by the Facility Agent

Notwithstanding the provision above, without the consent of the Facility Agent no amendment to this Agreement shall:

1. amend Clause 8 (*Payments*), Clause 13 (*Relationship among Finance Parties*) or Clause 17 (*Amendments and Waivers*) hereof;
2. amend or waive any rights of the Facility Agent under this Agreement, or impose additional obligations on the Facility Agent.

18. NOTICES

18.1 Notices through the Facility Agent

All communications between the Borrower and any Finance Party with respect to this Agreement shall be made through the Facility Agent.

18.2 Methods of Notices

Any notice, demand or other document from one party to the other hereto pursuant to the provisions of this Agreement shall be made in writing and be delivered to that party at such correspondence address or email address and marked for the attention of the persons (if any) as that party may designate from time to time in writing. The initial address, telephone number, email address and contact persons designated by each party are set forth on the execution pages hereof.

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

18.3 Delivery of Notices

Any communication between each party to this Agreement in accordance with the provisions of this Agreement shall be deemed as having been received upon the satisfaction of the following conditions:

1. if delivered in person, at the time of actual delivery;
2. if transmitted by email, when received in legible form;
3. if sent by mail, on the fifth (5) Business Day following the date of posting by registered mail at the correct address.

18.4 Change of Address

Any party to this Agreement shall promptly notify the Facility Agent of any change to its address, telephone number or email address. Any change to the aforesaid information of the Borrower will become effective upon notification of the Borrower to the Facility Agent. Upon receipt of such notice from any party to this Agreement, the Facility Agent shall forthwith notify the other parties hereto of any such change.

18.5 Language of Notices

Any notice under or in connection with this Agreement shall be prepared and issued in Chinese.

19. RIGHTS ACCUMULATIVE AND SEVERABILITY

19.1 Rights Accumulative

Neither failure to exercise nor delay in exercising on the part of any Finance Party any right under this Agreement shall operate as a waiver, nor shall any single or partial exercise of any right prevents that Finance Party from any further or otherwise exercise of any other rights. The rights and remedies provided in this Agreement are cumulative and not exclusive of any rights or remedies granted to any Finance Party by laws and regulations.

19.2 Severability

If at any time any provision of this Agreement is held to be illegal, invalid, or unenforceable in any respect, the legality, validity or enforceability of any other provisions of this Agreement shall not be affected or prejudiced.

20. DOCUMENTATION

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

20.1 Language

This Agreement is made and executed in Chinese; this English version is prepared for reference only; if there is any discrepancy, the Chinese version controls.

20.2 Counterparts

This Agreement is executed in five originals. Each Finance Party and the Borrower shall each keep one original, and each original shall have the same legal effect.

21. GOVERNING LAW AND DISPUTE RESOLUTION

21.1 Governing Law

This Agreement is governed by and shall be construed in accordance with the laws of the PRC (for the purpose of this Agreement the laws of the PRC shall not include the laws of Hong Kong Special Administrative Region, Macau Special Administrative Region and Taiwan Region).

21.2 Dispute Resolution

Disputes arising out of or in connection with this Agreement shall be submitted to the China International Economic and Trade Arbitration Commission, Shanghai Sub-Commission for arbitration, which shall be conducted in accordance with the arbitration rules in force at the time of the application for arbitration, and the number of arbitrators is three (3). In respect of the dispute between any Finance Party and the Borrower arising out of or in connection with this Agreement, the Facility Agent (acting on behalf of the Finance Party) and the Borrower, each as a party, shall appoint one arbitrator respectively, and the third arbitrator shall be jointly appointed by the Facility Agent (acting on behalf of the Finance Party) and the Borrower or appointed by the Chairman with joint authorisation granted by the Facility Agent and the Borrower. The arbitral award shall be final and binding on all parties.

22. TAKING EFFECT

This Agreement shall take effect on the Effective Date.

SCHEDULE 1 ORIGINAL COMMITMENT

Original Lenders	Original Commitment
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Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

Agricultural Bank of China Limited, Shanghai Changning Sub-branch	RMB562,500,000 (or the USD equivalent)
China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch	RMB562,500,000 (or the USD equivalent)
Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch	RMB562,500,000 (or the USD equivalent)
Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch	RMB562,500,000 (or the USD equivalent)
Total	RMB2,250,000,000 (or the USD equivalent)

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with "[***]" to indicate where omissions have been made.

SCHEDULE 2 FORM OF DRAWDOWN NOTICE

[***]

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

SCHEDULE 3 FORM OF TRANSFER CERTIFICATE

[***]

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APPENDIX: FORM FOR PORTIONS OF COMMITMENT BEING TRANSFERRED
[*]**

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**RMB 2,250,000,000 (OR THE USDEQUIVALENT) SYNDICATION REVOLVING LOAN AGREEMENT
EXECUTION PAGE**

Tesla (Shanghai) Co., Ltd.

(as Borrower)

Attention: Yu Xian

Address: 8F, Tower 3, Central Place, No.77 Jianguo Road, Chaoyang District, Beijing, China

Tel: [***]

Email: [***]

Authorized signatory:

/s/ Xiaotong Zhu _____

Name: Xiaotong Zhu

Company Chop

Title:

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

**RMB 2,250,000,000 (OR THE USD EQUIVALENT) SYNDICATION REVOLVING LOAN AGREEMENT
EXECUTION PAGE**

China Construction Bank Corporation, China (Shanghai) Pilot Free Trade Zone Special Area Branch

(as Primary Lead Arranger, Facility Agent, Original Lender)

Attention: Lifan Yang

Address: Pudong New District Xinyuan South Road No 555 B-3

Tel: [***]

Email: [***]

Authorized signatory:

/s/ Qinghong Jin

Name: Qinghong Jin

Company Chop

Title:

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with "[**]" to indicate where omissions have been made.

**RMB 2,250,000,000 (OR THE USDEQUIVALENT) SYNDICATION REVOLVING LOAN AGREEMENT
EXECUTION PAGE**

Industrial and Commercial Bank of China Limited, China (Shanghai) Pilot Free Trade Zone Special Area Branch
(as Joint Lead Arranger, Original Lender)

Attention: Jing Ouyang

Address: Shanghai Pudong New District Xinyuan South Road No 555

Tel: [**]

Email: [**]

Authorized signatory:

/s/ Jing Ouyang _____

Name: Jing Ouyang

Company Chop

Title:

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with "[**]" to indicate where omissions have been made.

**RMB 2,250,000,000 (OR THE USDEQUIVALENT) SYNDICATION REVOLVING LOAN AGREEMENT
EXECUTION PAGE**

Shanghai Pudong Development Bank Co., Ltd., Shanghai Branch

(as Joint Lead Arranger, Original Lender)

Attention: Qian Huang

Address: China (Shanghai) Pilot Free Trade Zone Special Area Pudong New District Xinyuan South Road No 588
19th floor

Tel: [**]

Email: [**]

Authorized signatory:

/s/ Su'nan Wang _____

Name: Su'nan Wang

Company Chop

Title:

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**RMB 2,250,000,000 (OR THE USDEQUIVALENT) SYNDICATION REVOLVING LOAN AGREEMENT
EXECUTION PAGE**

Agricultural Bank of China Limited, Shanghai Changning Sub-branch

(as Joint Lead Arranger, Trade Finance Party, Original Lender)

Attention: Zhifeng Pan

Address: Shanghai Changning District Dingxi Road No 998

Tel: [***]

Email: [***]

Authorized signatory:

/s/ Li Xu _____

Name: Li Xu

Company Chop

Title:

Certain identified information has been omitted from this document because it is not material and would be competitively harmful if publicly disclosed, and has been marked with “[***]” to indicate where omissions have been made.

Schedules Listed Below Omitted Pursuant to Regulation S-K Item 601(a)(5)

Schedule 2: Form of Drawdown Notice

Schedule 3: Form of Transfer Certificate

Appendix: Form for Portions of Commitment Being Transferred

SUBSIDIARIES OF TESLA, INC.

Name of Subsidiary	Jurisdiction of Incorporation or Organization
Allegheny Solar 1, LLC	Delaware
Allegheny Solar Manager 1, LLC	Delaware
Ancon Holdings II, LLC	Delaware
Ancon Holdings III, LLC	Delaware
Ancon Holdings, LLC	Delaware
Ancon Solar Corporation	Delaware
Ancon Solar I, LLC	Delaware
Ancon Solar II Lessee Manager, LLC	Delaware
Ancon Solar II Lessee, LLC	Delaware
Ancon Solar II Lessor, LLC	Delaware
Ancon Solar III Lessee Manager, LLC	Delaware
Ancon Solar III Lessee, LLC	Delaware
Ancon Solar III Lessor, LLC	Delaware
Ancon Solar Managing Member I, LLC	Delaware
Arpad Solar Borrower, LLC	Delaware
Arpad Solar I, LLC	Delaware
Arpad Solar Manager I, LLC	Delaware
AU Solar 1, LLC	Delaware
AU Solar 2, LLC	Delaware
Banyan SolarCity Manager 2010, LLC	Delaware
Banyan SolarCity Owner 2010, LLC	Delaware
Basking Solar I, LLC	Delaware
Basking Solar II, LLC	Delaware
Basking Solar Manager II, LLC	Delaware
Beatrix Solar I, LLC	Delaware
Bernese Solar Manager I, LLC	Delaware
Blue Skies Solar I, LLC	Delaware
Blue Skies Solar II, LLC	Delaware
Caballero Solar Managing Member I, LLC	Delaware
Caballero Solar Managing Member II, LLC	Delaware
Caballero Solar Managing Member III, LLC	Delaware
Cardinal Blue Solar, LLC	Delaware
Castello Solar I, LLC	Delaware
Castello Solar II, LLC	Delaware
Castello Solar III, LLC	Delaware
Chaparral SREC Borrower, LLC	Delaware
Chaparral SREC Holdings, LLC	Delaware
Chompie Solar I, LLC	Delaware
Chompie Solar II, LLC	Delaware
Chompie Solar Manager I, LLC	Delaware
Chompie Solar Manager II, LLC	Delaware
City UB Solar, LLC	Delaware
Clydesdale SC Solar I, LLC	Delaware
Common Assets Capital, LLC	Delaware
Common Assets Financial, LLC	Delaware
Common Assets Securities, LLC	Delaware
Common Assets Technologies, LLC	Delaware
Common Assets, LLC	Delaware
Dahlia Holdings I, LLC	Delaware
Dahlia Holdings II, LLC	Delaware
Dom Solar General Partner I, LLC	Delaware

Dom Solar Limited Partner I, LLC	Delaware
Eiger Lease Co, LLC	Delaware
Energy Freedom Coalition of America, LLC	Delaware
Falconer Solar Manager I, LLC	Delaware
Firehorn Solar Manager I, LLC	Delaware
FocalPoint Solar Borrower, LLC	Delaware
FocalPoint Solar I, LLC	Delaware
FocalPoint Solar Manager I, LLC	Delaware
Fontane Solar I, LLC	Delaware
Fotovoltaica GI 4, S. de R.L. de C.V.	Mexico
Fotovoltaica GI 5, S. de R.L. de C.V.	Mexico
FTE Solar I, LLC	Delaware
Grohmann Engineering Trading (Shanghai) Co. Ltd.	China
Grohmann USA, Inc.	Delaware
Guilder Solar, LLC	Delaware
Hammerhead Solar, LLC	Delaware
Hangzhou Silevo Electric Power Co., Ltd.	China
Harpoon Solar I, LLC	Delaware
Harpoon Solar Manager I, LLC	Delaware
Haymarket Holdings, LLC	Delaware
Haymarket Manager 1, LLC	Delaware
Haymarket Solar 1, LLC	Delaware
Hibar China Co. Ltd.	China
Hibar International Holdings, Inc.	Canada
Hibar Korea Ltd.	Republic of Korea
Hibar Systems Europe GmbH	Germany
Hibar Systems Limited	Canada
Ikehu Manager I, LLC	Delaware
IL Buono Solar I, LLC	Delaware
Iliosson, S.A. de C.V.	Mexico
Knight Solar Managing Member I, LLC	Delaware
Knight Solar Managing Member II, LLC	Delaware
Knight Solar Managing Member III, LLC	Delaware
Landlord 2008-A, LLC	Delaware
LML Partnership, LLC	Delaware
LML 2018 Warehouse SPV, LLC	Delaware
LML Warehouse SPV, LLC	Delaware
Louis Solar II, LLC	Delaware
Louis Solar III, LLC	Delaware
Louis Solar Manager II, LLC	Delaware
Louis Solar Manager III, LLC	Delaware
Louis Solar Master Tenant I, LLC	Delaware
Louis Solar MT Manager I, LLC	Delaware
Louis Solar Owner I, LLC	Delaware
Louis Solar Owner Manager I, LLC	Delaware
Mako GB SPV Holdings, LLC	Delaware
Mako GB SPV, LLC	Delaware
Mako Solar Holdings, LLC	Delaware
Mako Solar, LLC	Delaware
Master Tenant 2008-A, LLC	Delaware
Matterhorn Solar I, LLC	Delaware
Maxwell Holding GmbH	Germany
Maxwell Technologies Korea Co., Ltd.	Republic of Korea
Maxwell Technologies Hong Kong Limited	Hong Kong
Maxwell Technologies Shanghai Trading Co., Ltd.	China
Maxwell Technologies GmbH	Germany

Maxwell Technologies, Inc.	Delaware
Maxwell Technologies Shenzhen Trading Co., Ltd.	China
Maxwell Technologies Systems Division, Inc.	California
Megalodon Solar, LLC	Delaware
MML Acquisition Corp.	Delaware
Monte Rosa Solar I, LLC	Delaware
Mound Solar Manager V, LLC	Delaware
Mound Solar Manager VI, LLC	Delaware
Mound Solar Manager X, LLC	Delaware
Mound Solar Manager XI, LLC	Delaware
Mound Solar Manager XII, LLC	Delaware
Mound Solar Master Tenant IX, LLC	Delaware
Mound Solar Master Tenant V, LLC	California
Mound Solar Master Tenant VI, LLC	Delaware
Mound Solar Master Tenant VII, LLC	Delaware
Mound Solar Master Tenant VIII, LLC	Delaware
Mound Solar MT Manager IX, LLC	Delaware
Mound Solar MT Manager VII, LLC	Delaware
Mound Solar MT Manager VIII, LLC	Delaware
Mound Solar Owner IX, LLC	Delaware
Mound Solar Owner Manager IX, LLC	Delaware
Mound Solar Owner Manager VII, LLC	Delaware
Mound Solar Owner Manager VIII, LLC	Delaware
Mound Solar Owner V, LLC	California
Mound Solar Owner VI, LLC	Delaware
Mound Solar Owner VII, LLC	Delaware
Mound Solar Owner VIII, LLC	Delaware
Mound Solar Partnership X, LLC	Delaware
Mound Solar Partnership XI, LLC	Delaware
Mound Solar Partnership XII, LLC	Delaware
MS SolarCity 2008, LLC	Delaware
MS SolarCity Commercial 2008, LLC	Delaware
MS SolarCity Residential 2008, LLC	Delaware
MT Solar Corporation	Delaware
NBA SolarCity AFB, LLC	California
NBA SolarCity Commercial I, LLC	California
NBA SolarCity Solar Phoenix, LLC	California
Northern Nevada Research Co., LLC	Nevada
Oranje Solar I, LLC	Delaware
Oranje Solar Manager I, LLC	Delaware
Paramount Energy Fund I Lessee, LLC	Delaware
Paramount Energy Fund I Lessor, LLC	Delaware
PEF I MM, LLC	Delaware
Perbix Machine Company, Inc.	Minnesota
Poppy Acquisition LLC	Delaware
Presidio Solar I, LLC	Delaware
Presidio Solar II, LLC	Delaware
Presidio Solar III, LLC	Delaware
Pukana La Solar I, LLC	Delaware
Roadster Automobile Sales and Service (Beijing) Co., Ltd.	China
Roadster Finland Oy	Finland
Sequoia Pacific Holdings, LLC	Delaware
Sequoia Pacific Manager I, LLC	Delaware
Sequoia Pacific Solar I, LLC	Delaware
Sequoia SolarCity Owner I, LLC	Delaware
Servicios de Tecnología Y Administración Ilios, S.A. de C.V.	Mexico

Sierra Solar Power (Hong Kong) Limited	Hong Kong
Silevo, LLC	Delaware
Solar Aquarium Holdings, LLC	Delaware
Solar Energy of America 1, LLC	Delaware
Solar Energy of America Manager 1, LLC	Delaware
Solar Explorer, LLC	Delaware
Solar Gezellig Holdings, LLC	Delaware
Solar House I, LLC	Delaware
Solar House II, LLC	Delaware
Solar House III, LLC	Delaware
Solar House IV, LLC	Delaware
Solar Integrated Fund I, LLC	Delaware
Solar Integrated Fund II, LLC	Delaware
Solar Integrated Fund III, LLC	Delaware
Solar Integrated Fund IV-A, LLC	Delaware
Solar Integrated Fund V, LLC	Delaware
Solar Integrated Fund VI, LLC	Delaware
Solar Integrated Manager I, LLC	Delaware
Solar Integrated Manager II, LLC	Delaware
Solar Integrated Manager III, LLC	Delaware
Solar Integrated Manager IV-A, LLC	Delaware
Solar Integrated Manager V, LLC	Delaware
Solar Integrated Manager VI, LLC	Delaware
Solar Services Company, LLC	Delaware
Solar Ulysses Manager I, LLC	Delaware
Solar Ulysses Manager II, LLC	Delaware
Solar Voyager, LLC	Delaware
Solar Warehouse Manager I, LLC	Delaware
Solar Warehouse Manager II, LLC	Delaware
Solar Warehouse Manager III, LLC	Delaware
Solar Warehouse Manager IV, LLC	Delaware
SolarCity Alpine Holdings, LLC	Delaware
SolarCity Amphitheatre Holdings, LLC	Delaware
SolarCity Arbor Holdings, LLC	Delaware
SolarCity Arches Holdings, LLC	Delaware
SolarCity AU Holdings, LLC	Delaware
SolarCity Cruyff Holdings, LLC	Delaware
SolarCity Electrical New York Corporation	Delaware
SolarCity Electrical, LLC	Delaware
SolarCity Engineering, Inc.	California
SolarCity Finance Company, LLC	Delaware
SolarCity Finance Holdings, LLC	Delaware
SolarCity Foxborough Holdings, LLC	Delaware
SolarCity FTE Series 1, LLC	Delaware
SolarCity FTE Series 2, LLC	Delaware
SolarCity Fund Holdings, LLC	Delaware
SolarCity Grand Canyon Holdings, LLC	Delaware
SolarCity Holdings 2008, LLC	Delaware
SolarCity International, Inc.	Delaware
SolarCity Leviathan Holdings, LLC	Delaware
SolarCity LMC Series I, LLC	Delaware
SolarCity LMC Series II, LLC	Delaware
SolarCity LMC Series III, LLC	Delaware
SolarCity LMC Series IV, LLC	Delaware
SolarCity LMC Series V, LLC	Delaware
SolarCity Mid-Atlantic Holdings, LLC	Delaware

SolarCity Nitro Holdings, LLC	Delaware
SolarCity Orange Holdings, LLC	Delaware
SolarCity Series Holdings I, LLC	Delaware
SolarCity Series Holdings II, LLC	Delaware
SolarCity Series Holdings IV, LLC	Delaware
SolarCity Steep Holdings, LLC	Delaware
SolarCity Ulu Holdings, LLC	Delaware
SolarCity Village Holdings, LLC	Delaware
SolarRock, LLC	Delaware
SolarStrong, LLC	Delaware
Sparrowhawk Solar I, LLC	Delaware
SREC Holdings, LLC	Delaware
TALT Holdings, LLC	Delaware
TALT TBM Holdings, LLC	Delaware
TBM Partnership II, LLC	Delaware
TES 2017-1, LLC	Delaware
TES 2017-2, LLC	Delaware
TES 2018-K2, LLC	Delaware
TES Holdings 2017-1, LLC	Delaware
TES Holdings 2018-K2, LLC	Delaware
Tesla (Beijing) New Energy R&D Co., Ltd.	China
Tesla 2014 Warehouse SPV LLC	Delaware
Tesla Auto Lease Trust 2018-A	Delaware
Tesla Auto Lease Trust 2018-B	Delaware
Tesla Motors (Beijing) Co., Ltd.	China
Tesla Automobile Sales and Service (Beijing) Co., Ltd.	China
Tesla Automobile Sales and Service (Changsha) Co., Ltd.	China
Tesla Automobile Sales and Service (Chengdu) Co., Ltd.	China
Tesla Automobile Sales and Service (Chongqing) Co., Ltd.	China
Tesla Automobile Sales and Service (Dalian) Co., Ltd.	China
Tesla Automobile Sales and Service (Guangzhou) Co., Ltd.	China
Tesla Automobile Sales and Service (Hangzhou) Co., Ltd.	China
Tesla Automobile Sales and Service (Nanjing) Co., Ltd.	China
Tesla Automobile Sales and Service (Nanning) Co., Ltd.	China
Tesla Automobile Sales and Service (Ningbo) Co., Ltd.	China
Tesla Automobile Sales and Service (Qingdao) Co., Ltd.	China
Tesla Automobile Sales and Service (Shanghai) Co., Ltd.	China
Tesla Automobile Sales and Service (Shanghai) Co., Ltd., Xinhong Branch	China
Tesla Automobile Sales and Service (Shanghai) Co., Ltd., Yangpu Branch	China
Tesla Automobile Sales and Service (Shenzhen) Co., Ltd.	China
Tesla Automobile Sales and Service (Shenzhen) Co., Ltd., Futian Branch 2	China
Tesla Automobile Sales and Service (Shenyang) Co., Ltd.	China
Tesla Automobile Sales and Service (Suzhou) Co. Ltd.	China
Tesla Automobile Sales and Service (Tianjin) Co. Ltd.	China
Tesla Automobile Sales and Service (Wenzhou) Co., Ltd.	China
Tesla Automobile Sales and Service (Wuhan) Co., Ltd.	China
Tesla Automobile Sales and Service (Xi'an) Co., Ltd.	China
Tesla Automobile Sales and Service (Xiamen) Co., Ltd.	China
Tesla Automobile Sales and Service (Zhengzhou) Co. Ltd.	China
Tesla Automobiles Sales and Service Mexico, S. de R.L. de C.V.	Mexico
Tesla Belgium BVBA	Belgium
Tesla Canada GP Inc.	Canada
Tesla Canada LP	Canada
Tesla Czech Republic s.r.o.	Czech Republic
Tesla Energia Macau Limitada	Macau
Tesla Energy d.o.o.	Slovenia

Tesla Energy Electrical LLC	Delaware
Tesla Energy Operations, Inc.	Delaware
Tesla Energy Sales LLC	Delaware
Tesla Finance LLC	Delaware
Tesla Financial Leasing (China) Co., Ltd.	China
Tesla Financial Services GmbH	Germany
Tesla Financial Services Holdings B.V.	Netherlands
Tesla Financial Services Limited	United Kingdom
Tesla France S.à r.l.	France
Tesla Germany GmbH	Germany
Tesla Greece Single Member P.C.	Greece
Tesla Grohmann Automation GmbH	Germany
Tesla Insurance, Inc.	Delaware
Tesla Insurance Holdings, LLC	Delaware
Tesla Insurance Services, Inc.	California
Tesla International B.V.	Netherlands
Tesla Italy S.r.l.	Italy
Tesla Jordan Car Trading LLC	Jordan
Tesla Korea Limited	Republic of Korea
Tesla Lease Trust	Delaware
Tesla Manufacturing Brandenburg SE	Germany
Tesla Michigan, Inc.	Michigan
Tesla Motors Australia, Pty Ltd	Australia
Tesla Motors Austria GmbH	Austria
Tesla Motors Canada ULC	Canada
Tesla Motors Coöperatief U.A.	Netherlands
Tesla Motors Denmark ApS	Denmark
Tesla Motors FL, Inc.	Florida
Tesla Motors HK Limited	Hong Kong
Tesla Motors Iceland ehf.	Iceland
Tesla Motors Ireland Limited	Ireland
Tesla Motors Israel Ltd.	Israel
Tesla Motors Japan GK	Japan
Tesla Motors Limited	United Kingdom
Tesla Motors Luxembourg S.à r.l.	Luxembourg
Tesla Motors MA, Inc.	Massachusetts
Tesla Motors Netherlands B.V.	Netherlands
Tesla Motors New York LLC	New York
Tesla Motors NL LLC	Delaware
Tesla Motors Norway AS	Norway
Tesla Motors NV, Inc.	Nevada
Tesla Motors PA, Inc.	Pennsylvania
Tesla Motors Sales and Service LLC	Turkey
Tesla Motors Singapore Holdings Pte. Ltd.	Singapore
Tesla Motors Singapore Private Limited	Singapore
Tesla Motors Stichting	Netherlands
Tesla Switzerland GmbH	Switzerland
Tesla Motors Taiwan Limited	Taiwan
Tesla Motors TN, Inc.	Tennessee
Tesla Motors TX, Inc.	Texas
Tesla Motors UT, Inc.	Utah
Tesla New Zealand ULC	New Zealand
Tesla Portugal, Sociedade Unipessoal LDA	Portugal
Tesla Poland sp. z o.o.	Poland
Tesla Puerto Rico LLC	Puerto Rico
Tesla Sales, Inc.	Delaware

Tesla Services Sdn. Bhd.	Malaysia
Tesla Shanghai Co., Ltd	China
Tesla Spain, S.L. Unipersonal	Spain
Tesla Transport B.V.	Netherlands
Tesla, Inc.	Delaware
The Big Green Solar Holdings, LLC	Delaware
The Big Green Solar I, LLC	Delaware
The Big Green Solar Manager I, LLC	Delaware
Three Rivers Solar 1, LLC	Delaware
Three Rivers Solar 2, LLC	Delaware
Three Rivers Solar 3, LLC	Delaware
Three Rivers Solar Manager 1, LLC	Delaware
Three Rivers Solar Manager 2, LLC	Delaware
Three Rivers Solar Manager 3, LLC	Delaware
TM International C.V.	Netherlands
TM Sweden AB	Sweden
USB SolarCity Manager 2009, LLC	Delaware
USB SolarCity Manager 2009-2010, LLC	Delaware
USB SolarCity Manager III, LLC	Delaware
USB SolarCity Manager IV, LLC	Delaware
USB SolarCity Master Tenant 2009, LLC	California
USB SolarCity Master Tenant 2009-2010, LLC	California
USB SolarCity Master Tenant IV, LLC	California
USB SolarCity Owner 2009, LLC	California
USB SolarCity Owner 2009-2010, LLC	California
USB SolarCity Owner IV, LLC	California
Visigoth Solar 1, LLC	Delaware
Visigoth Solar Holdings, LLC	Delaware
Visigoth Solar Managing Member 1, LLC	Delaware
VPP Project 1 (SA) Pty Ltd.	Australia
Weisshorn Solar I, LLC	Delaware
Weisshorn Solar Manager I, LLC	Delaware
Zep Solar Hong Kong Limited	Hong Kong
Zep Solar LLC	California
Zep Solar Trading Ltd	China

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (Nos. 333-231168, 333-230180, and 333-221378) and S-8 (Nos. 333-232079, 333-223169, 333-216376, 333-209696, 333-198002, 333-187113, 333-183033, and 333-167874) of Tesla, Inc. of our report dated February 13, 2020 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

San Jose, California
February 13, 2020

CERTIFICATIONS

I, Elon Musk, certify that:

1. I have reviewed this Annual Report on Form 10-K of Tesla, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 13, 2020

/s/ Elon Musk
Elon Musk
Chief Executive Officer
(Principal Executive Officer)

CERTIFICATIONS

I, Zachary J. Kirkhorn, certify that:

1. I have reviewed this Annual Report on Form 10-K of Tesla, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 13, 2020

/s/ Zachary J. Kirkhorn
Zachary J. Kirkhorn
Chief Financial Officer
(Principal Financial Officer)

SECTION 1350 CERTIFICATIONS

I, Elon Musk, certify, pursuant to 18 U.S.C. Section 1350, that, to my knowledge, the Annual Report of Tesla, Inc. on Form 10-K for the annual period ended December 31, 2019, (i) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (ii) that the information contained in such Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Tesla, Inc.

Date: February 13, 2020

/s/ Elon Musk
Elon Musk
Chief Executive Officer
(Principal Executive Officer)

I, Zachary J. Kirkhorn, certify, pursuant to 18 U.S.C. Section 1350, that, to my knowledge, the Annual Report of Tesla, Inc. on Form 10-K for the annual period ended December 31, 2019, (i) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (ii) that the information contained in such Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Tesla, Inc.

Date: February 13, 2020

/s/ Zachary J. Kirkhorn
Zachary J. Kirkhorn
Chief Financial Officer
(Principal Financial Officer)